

TECHNICAL MEMORANDUM

INDEX MAPS FOR GEMINI EARTH PHOTOGRAPHY

(NASA-CR-141934) INDEX MAPS FOR GEMINI
EARTH PHOTOGRAPHY (Lockheed Electronics Co.)
97 p HC \$4.75 CSCI 08B

N75-28502

Unclas
31091

G3/43

ASSEMBLED BY

L. E. GIDDINGS

LIFE SCIENCES APPLICATIONS DEPARTMENT
LOCKHEED ELECTRONICS CO., INC.
HOUSTON AEROSPACE SYSTEMS DIVISION

CONTRACT NAS 9-12200

FOR

HEALTH APPLICATIONS OFFICE
LIFE SCIENCES DIRECTORATE

1.
2.
3.
4.
5.

FOLDOUT FRAME /

Whole Earth

1. Gemini 3 through 12

Western Hemisphere and Eastern Pacific Ocean

2. Gemini 3 and 4--Southwest to Central United States and Adjacent Areas of Mexico
3. Gemini 4--North America
4. Gemini 4--Southeast United States
5. Gemini 5--North and South America
6. Gemini 5--Southwest United States and North America
7. Gemini 5--United States Gulf Coast
8. Gemini 5--Florida
9. Gemini 7
10. Gemini 7--Western Mexico
11. Gemini 7--Northern Mexico, Texas, and Louisiana
12. Gemini 7--Southeast United States and Northeast America
13. Gemini 9, 10, 11, and 12--Selected Frames and South America
14. Gemini 9, 10, 11, and 12--Selected Frames and Adjacent Parts of United States
15. Gemini 9
16. Gemini 9--Southwest United States and Western Hemisphere

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INDEX TO MAPS

rough 12

Eastern Pacific Ocean

4--Southwest to Central United States
ent Areas of Mexico

North America

outheast United States

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0, 11, and 12--Selected Frames of North
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0, 11, and 12--Selected Frames of Mexico
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- 26. Gemini 12--Third Part (Ma
- 27. Gemini 12--Gulf Coast to
Mexico and Southern Uni
- 28. Gemini 12--Gulf Coast to
Mexico and Southern Uni
- 29. Gemini 12--Gulf Coast to
Mexico and Southern Uni
- 30. Gemini 12--Gulf Coast to
Mexico and Southern Uni
- 31. Gemini 12--Florida and Ad
- 32. Gemini 12--Florida and Ad
- 33. Gemini 12--Florida and Ad

Africa, India, and the Near East

- 34. Gemini 4
- 35. Gemini 5
- 36. Gemini 6
- 37. Gemini 7
- 38. Gemini 9
- 39. Gemini 10
- 40. Gemini 11
- 41. Gemini 12 (Magazine 8)

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Magazine 8)

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Western Hemisphere and Eastern Pacific Ocean

2. Gemini 3 and 4--Southwest to Central United States and Adjacent Areas of Mexico
3. Gemini 4--North America
4. Gemini 4--Southeast United States
5. Gemini 5--North and South America
6. Gemini 5--Southwest United States and Northern Mexico
7. Gemini 5--United States Gulf Coast
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10. Gemini 7--Western Mexico
11. Gemini 7--Northern Mexico, Texas, and Louisiana
12. Gemini 7--Southeast United States and Northeast Mexico
13. Gemini 9, 10, 11, and 12--Selected Frames and South America
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15. Gemini 9
16. Gemini 9--Southwest United States and Western Mexico
17. Gemini 9--Eastern Mexico and Gulf Coast of United States
18. Gemini 10
19. Gemini 10--Eastern Pacific near Guadalupe
20. Gemini 10--Northeast Mexico and Gulf Coast of United States
21. Gemini 11--North and South America
22. Gemini 11--Gulf Coast of United States
23. Gemini 11--Florida
24. Gemini 12--First Part (part of Magazine 8)

FOLDOUT FRAME

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26. Gemini 12--Third Part (Magazine 11)
 27. Gemini 12--Gulf Coast to Pacific Coast of North
Mexico and Southern United States (First part)
 28. Gemini 12--Gulf Coast to Pacific Coast of North
Mexico and Southern United States (Second part)
 29. Gemini 12--Gulf Coast to Pacific Coast of North
Mexico and Southern United States (Third part)
 30. Gemini 12--Culf Coast to Pacific Coast of North
Mexico and Southern United States (Fourth part)
 31. Gemini 12--Florida and Adjacent Areas (First part)
 32. Gemini 12--Florida and Adjacent Areas (Second part)
 33. Gemini 12--Florida and Adjacent Areas (Third part)

Africa, India, and the Near East

34. Gemini 4
35. Gemini 5
36. Gemini 6
37. Gemini 7
38. Gemini 9
39. Gemini 10
40. Gemini 11
41. Gemini 12 (Magazine 8)
42. Gemini 12 (Magazine 11 and part of Magazine 8)

Asia, Australia, and the Pacific Ocean

43. Gemini 4, 5, 6, and 7
44. Gemini 10
45. Gemini 11
46. Gemini 12

FOLDOUT FRAME

5

mini 12--Second Part (Magazines 10, 17, and
remainder of Magazine 8)

mini 12--Third Part (Magazine 11)

mini 12--Gulf Coast to Pacific Coast of Northern
Mexico and Southern United States (First part)

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Mexico and Southern United States (Second part)

mini 12--Gulf Coast to Pacific Coast of Northern
Mexico and Southern United States (Third part)

mini 12--Gulf Coast to Pacific Coast of Northern
Mexico and Southern United States (Fourth part)

mini 12--Florida and Adjacent Areas (First part)

mini 12--Florida and Adjacent Areas (Second part)

mini 12--Florida and Adjacent Areas (Third part)

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mini 12 (Magazine 8)

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ia, and the Pacific Ocean

mini 4, 5, 6, and 7

mini 10

mini 11

mini 12

FOLDOUT FRAME

ERRATUM SHEET

It was inadvertently omitted from the introduction that terrain photographs from Gemini missions were largely taken as part of a formal NASA experiment, the Synoptic Terrain Photography Experiment (S005). Users of these maps may find it necessary to learn more about the background of the photography, and are therefore referred to the following publications:

Lowman, P.D., Jr., 1969, Geologic orbital photography: Experience from the Gemini Program, *Photogrammetria*, v. 24, p. 77-106.

----- 1973, Geologic uses of earth orbital photography: Chap. 21 in *The Surveillance Science*, R.K. Holz, editor, Houghton Mifflin, Boston, 390 pages.

----- and Tiedemann, H.A., 1971, Terrain photography from Gemini spacecraft: Final geologic report, X-644-71-15, Goddard Space Flight Center, Greenbelt, Maryland 20771, 75 p.

----- 1968, Space Panorama, *Weltflugbild* Reinhold A. Muller, Zurich, 140 p.

----- 1972, The Third Planet, *Weltflugbild* Reinhold A. Muller, Zurich, 170 p.

Index maps to the Gemini missions have not been generally available. Although a few have been published there has been no central place where they might all be found.

This document presents all of the Gemini index maps known to persons closely attached to the Gemini and related projects. It is an uncritical listing, published for the convenience of users of Gemini photography.

See note on

2. USE OF THE MAPS

In general, no effort has been made to revise the maps. Some small errors have been noted and corrected, others may be expected, especially concerning exact boundaries of the photographs.

In general, the mission, magazine number, and frame number from these maps will be sufficient to identify a photograph. However, each photograph has been assigned a different number at JSC, and, in certain cases, still another number was assigned at NASA headquarters. For example, frame 52 of magazine F of Gemini 9, a picture of the coast of Brazil, is numbered S66-38192 at the Johnson Space Center and 66-HC-682 at NASA headquarters.

As a practical matter, the mission, magazine, and frame numbers of each scene will have to be converted to JSC numbers. At JSC these numbers are available from GEMSORT(1) or from the individual indexing reports (2-10). If one wishes to purchase copies from the EROS data center, the person handling his query can make the conversion. In all citations, it is preferable to list the JSC number.

3. A GEOGRAPHICAL INDEX TO THE MAPS

For the convenience of the user, the following list of index photographs of the indicated areas.

United States: 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33

Mexico: 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29

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place where they might all be

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attached to the Gemini and related
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mini photography.

See note on facing page

OF THE MAPS

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Gemini 9, a picture of the coast
38192 at the Johnson Space Center
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numbers are available from
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INDEX TO THE MAPS

of the user, the following figures
adicated areas.

4, 5, 6, 7, 8, 9, 11, 12, 13,
18, 20, 21, 22, 23, 24, 25,
9, 30, 31, 32, 33

7, 9, 10, 11, 13, 14, 15, 16,

21, 24, 25, 26, 27, 28, 29, 30

Maps were gathered from several sources
previously printed maps were used. When thes
available, working maps were gathered from pr
and others who made routine use of them.

We express our appreciation to the foll
all of whom have furnished materials from the
hoarded files: Herbert A. Tiedemann, Earth R
Goddard Space Flight Center; Richard W. Under
Techniques Laboratory, Johnson Space Center;
and J. seph Peacock, Project Support Facility,
Center.

5. REFERENCES

1. S. B. Hixon, "Technical Working Paper
Data Computer Program: GEMSORT," LEC/ASD No.
Lockheed Electronics Company, for Mapping Sci
NASA-JSC, Houston (1970)

2. Richard W. Underwood, "Gemini III
Identification," (3rd rev.), REDAF 50-00103,
Houston (1966)

3. Richard W. Underwood, "Gemini IV 7
Identification," REDAF NR-50-00104, NASA-JSC

4. Richard W. Underwood, "Gemini V 70
Identification," (2nd rev.), REDAF NR-50-001
Houston (1966)

5. Richard W. Underwood, "Gemini VI 7
Identification," (2nd rev.), REDAF N\$-50-106
Houston (1966)

6. Richard W. Underwood, "Gemini VII
Identification," (2nd rev.), REDAF NR-50-001
Houston (1966)

7. Richard W. Underwood, "Gemini VIII
Identification," REDAF NR-50-00108, NASA-JSC

8. Richard W. Underwood, "Gemini IX 7
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9. Richard W. Underwood, "Gemini X 7

4. SOURCES OF THE MAPS

gathered from several sources. When possible, the maps were used. When these were not available, maps were gathered from principal investigators and made routine use of them.

Our appreciation to the following persons, who furnished materials from their carefully collected files: Herbert A. Tiedemann, Earth Resources Branch, NASA Earth Resources Light Center; Richard W. Underwood, Photographic Laboratory, Johnson Space Center; and Gene Pilling, Project Support Facility, Johnson Space Center.

5. REFERENCES

Hixon, "Technical Working Paper, Photographic Program: GEMSORT," LEC/ASD No. TWP-70-12, Electronics Company, for Mapping Sciences Laboratory, Houston (1970)

Richard W. Underwood, "Gemini III 70-mm Photography" (3rd rev.), REDAF 50-00103, NASA-JSC,

Richard W. Underwood, "Gemini IV 70-mm Photography" REDAF NR-50-00104, NASA-JSC, Houston (1965)

Richard W. Underwood, "Gemini V 70-mm Photography" (2nd rev.), REDAF NR-50-00105, NASA-JSC,

Richard W. Underwood, "Gemini VI 70-mm Photography" (2nd rev.), REDAF NR-50-106, NASA-JSC,

Richard W. Underwood, "Gemini VII 70-mm Photography" (2nd rev.), REDAF NR-50-00107, NASA-JSC,

Richard W. Underwood, "Gemini VIII 70-mm Photography" REDAF NR-50-00108, NASA-JSC, Houston (1966)

Richard W. Underwood, "Gemini IX 70-mm Photography" (1st rev.), REDAF NR-50-00100, NASA-JSC

Richard W. Underwood, "Gemini X 70-mm Photography"

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14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25,
26, 27, 28, 29, 30, 31, 32, 33

Mexico: 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 16,
17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29, 30

Gulf of Mexico and Caribbean Sea: 3, 4, 5, 8, 9,
12, 13, 14, 15, 24, 25, 26, 31, 33

Central America: 5, 9, 13, 25

South America: 5, 9, 13, 15, 18, 21

Eastern Pacific Ocean and French Polynesia: 6, 9,
10, 13, 18, 19, 25

Africa and Near East: 34 through 42

Asia and Western Pacific Ocean: 43, 46

Australia: 43, 45

FOLDOUT FRAME 4

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ALPHABETICAL INDEX TO THE MAPS

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8, 29, 30, 31, 32, 33

6, 7, 9, 10, 11, 13, 14, 15, 16,
9, 20, 21, 24, 25, 26, 27, 28, 29, 30

nd Caribbean Sea: 3, 4, 5, 8, 9,
4, 15, 24, 25, 26, 31, 33

5, 9, 13, 25

5, 9, 13, 15, 18, 21

Ocean and French Polynesia: 6, 9,
3, 19, 25

East: 34 through 42

Pacific Ocean: 43, 46

FOLDOUT FRAME 5

2. Richard W. Underwood, "Gemini
Identification," (3rd rev.), REDAF 50-001
Houston (1966)

3. Richard W. Underwood, "Gemini
Identification," REDAF NR-50-00104, NASA-

4. Richard W. Underwood, "Gemini
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Houston (1966)

5. Richard W. Underwood, "Gemini
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Houston (1966)

6. Richard W. Underwood, "Gemini
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7. Richard W. Underwood, "Gemini
Identification," REDAF NR-50-00108, NASA-

8. Richard W. Underwood, "Gemini
Identification," (1st rev.), REDAF NR-50-
Houston (1966)

9. Richard W. Underwood, "Gemini
Identification," (preliminary), REDAF NR-
Houston (1966)

10. Richard W. Underwood, "Gemini
Identification," REDAF NR-50-00111, NASA-

11. Richard W. Underwood, "Gemini
Identification," (preliminary), REDAF NR-
Houston (1966)

12. Richard W. Underwood, "Space Pho
18 in "Gemini Summary Conference," NASA SP

tion," (3rd rev.), REDAF NR-50-00103, NASA-JSC,
(1966)

Richard W. Underwood, "Gemini IV 70-mm Photography
tion," REDAF NR-50-00104, NASA-JSC, Houston (1965)

Richard W. Underwood, "Gemini V 70-mm Photography
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(1966)

Richard W. Underwood, "Gemini VI 70-mm Photography
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(1966)

Richard W. Underwood, "Gemini VII 70-mm Photography
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(1966)

Richard W. Underwood, "Gemini VIII 70-mm Photography
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Richard W. Underwood, "Gemini IX 70-mm Photography
tion," (1st rev.), REDAF NR-50-00100, NASA-JSC
(1966)

Richard W. Underwood, "Gemini X 70-mm Photography
tion," (preliminary), REDAF NR-50-00110, NASA-JSC,
(1966)

Richard W. Underwood, "Gemini XI 70-mm Photography
tion," REDAF NR-50-00111, NASA-JSC, Houston (1966)

Richard W. Underwood, "Gemini XII 70-mm Photography
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(1966)

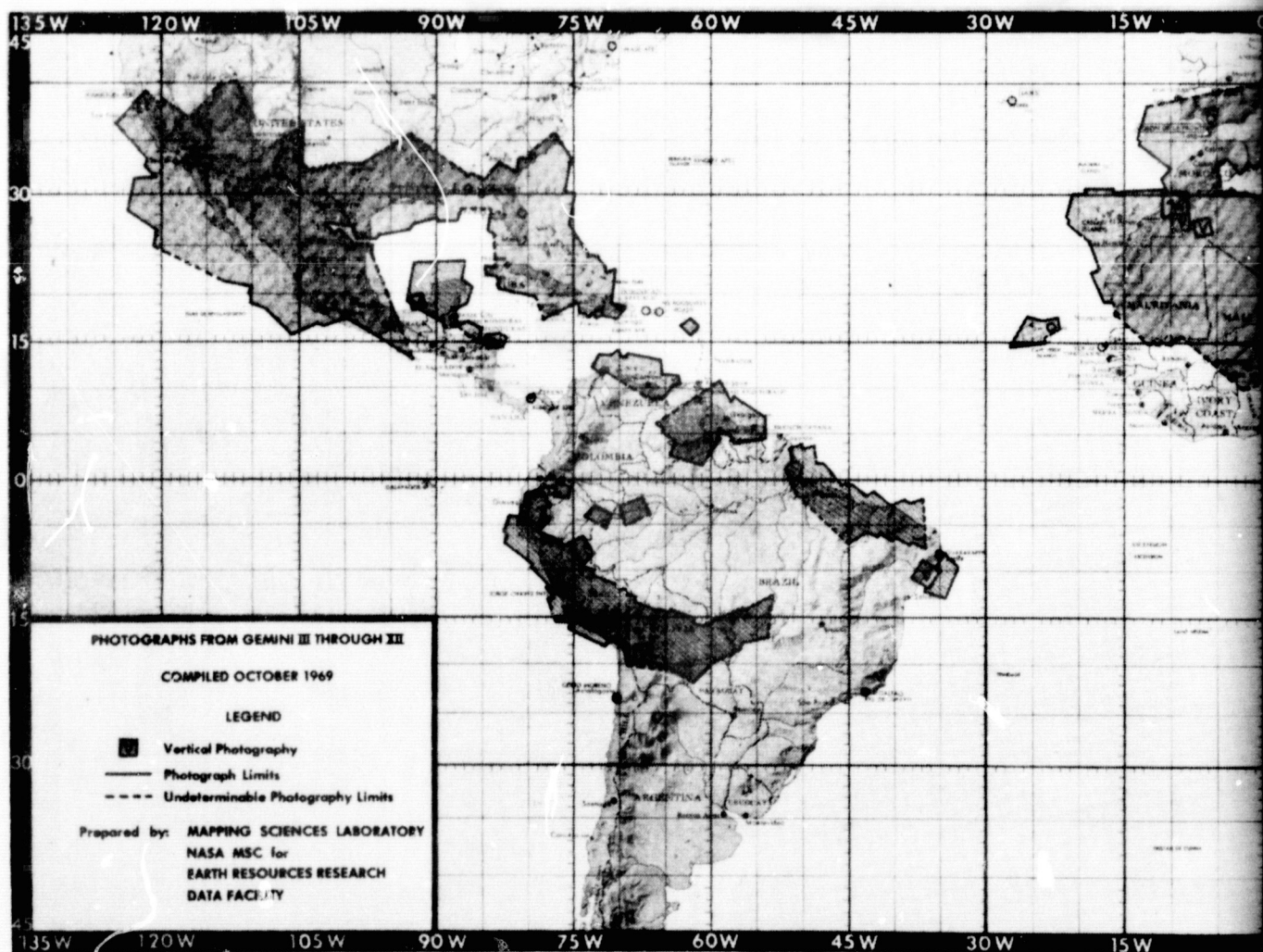
Richard W. Underwood, "Space Photography," Chapter
Gemini Summary Conference," NASA SP-138 (1967)

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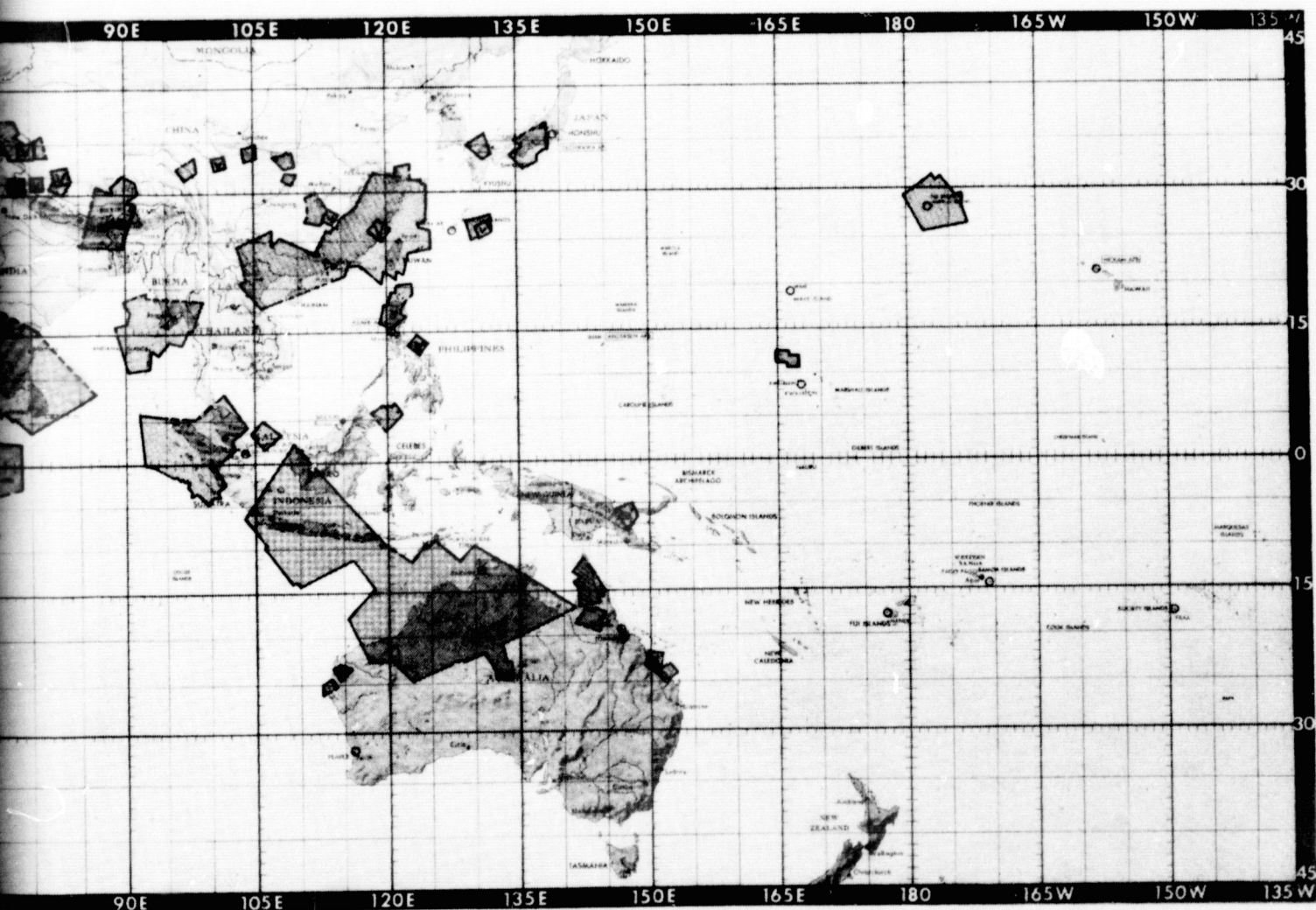
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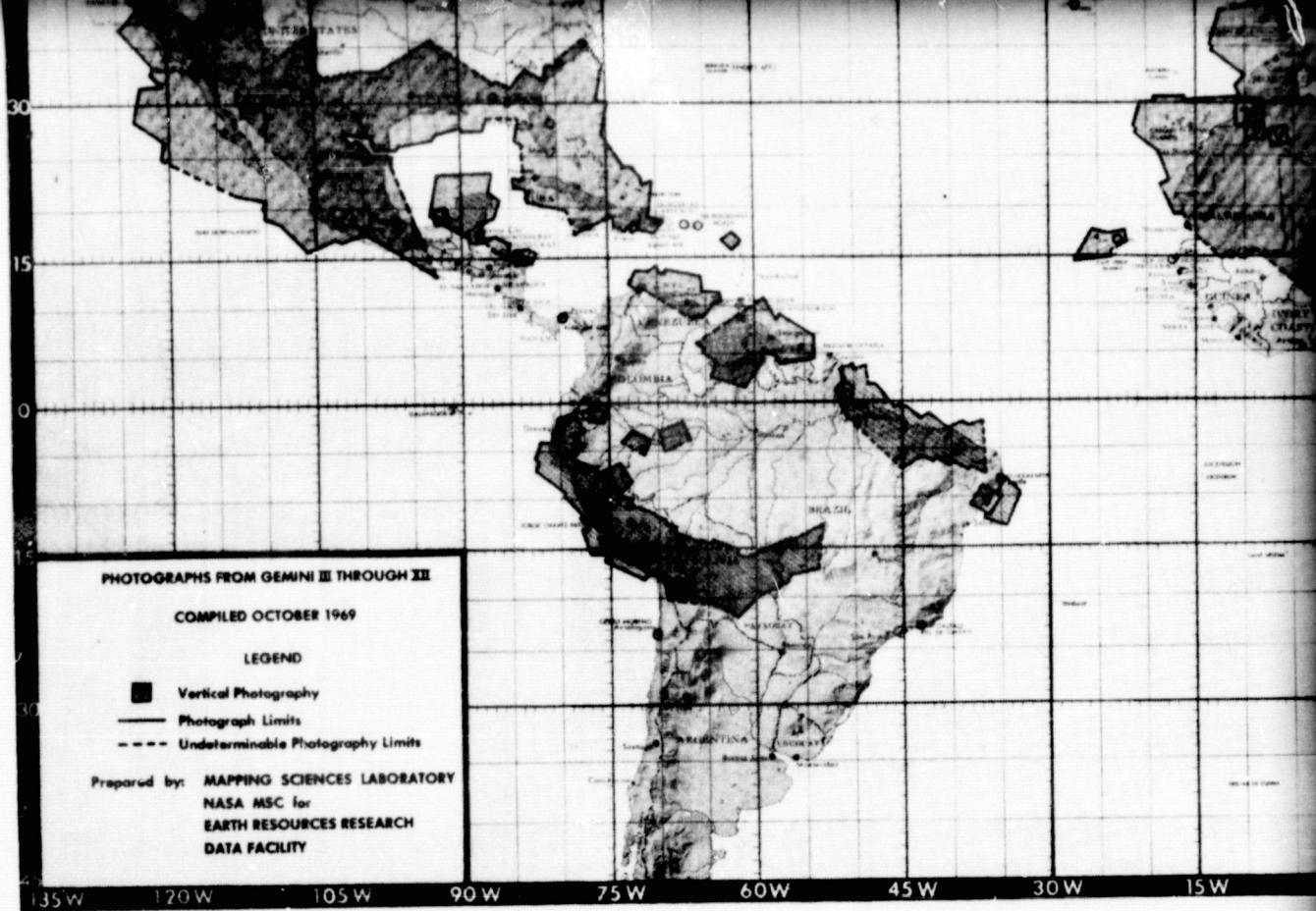


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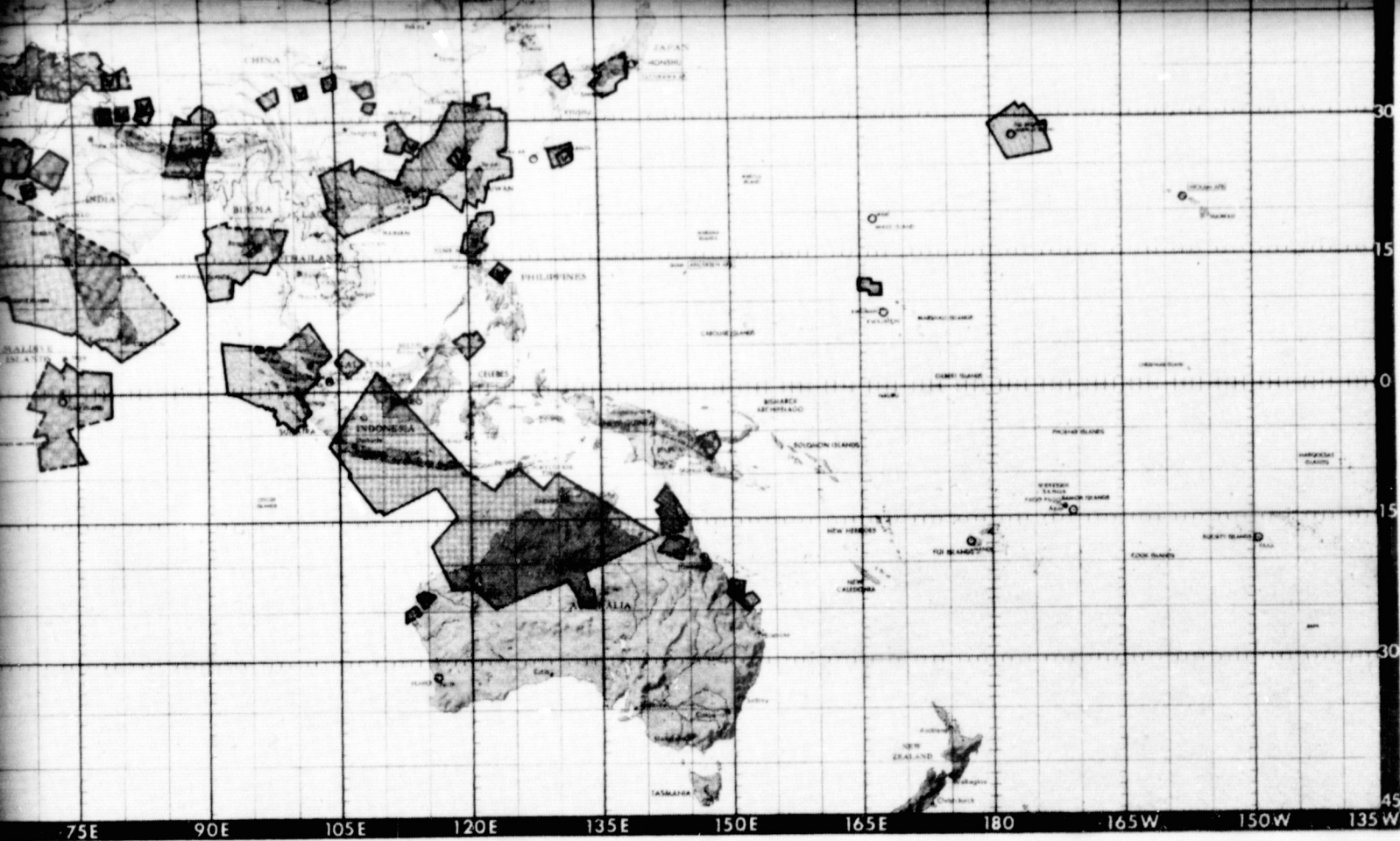
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COVERAGE MAP



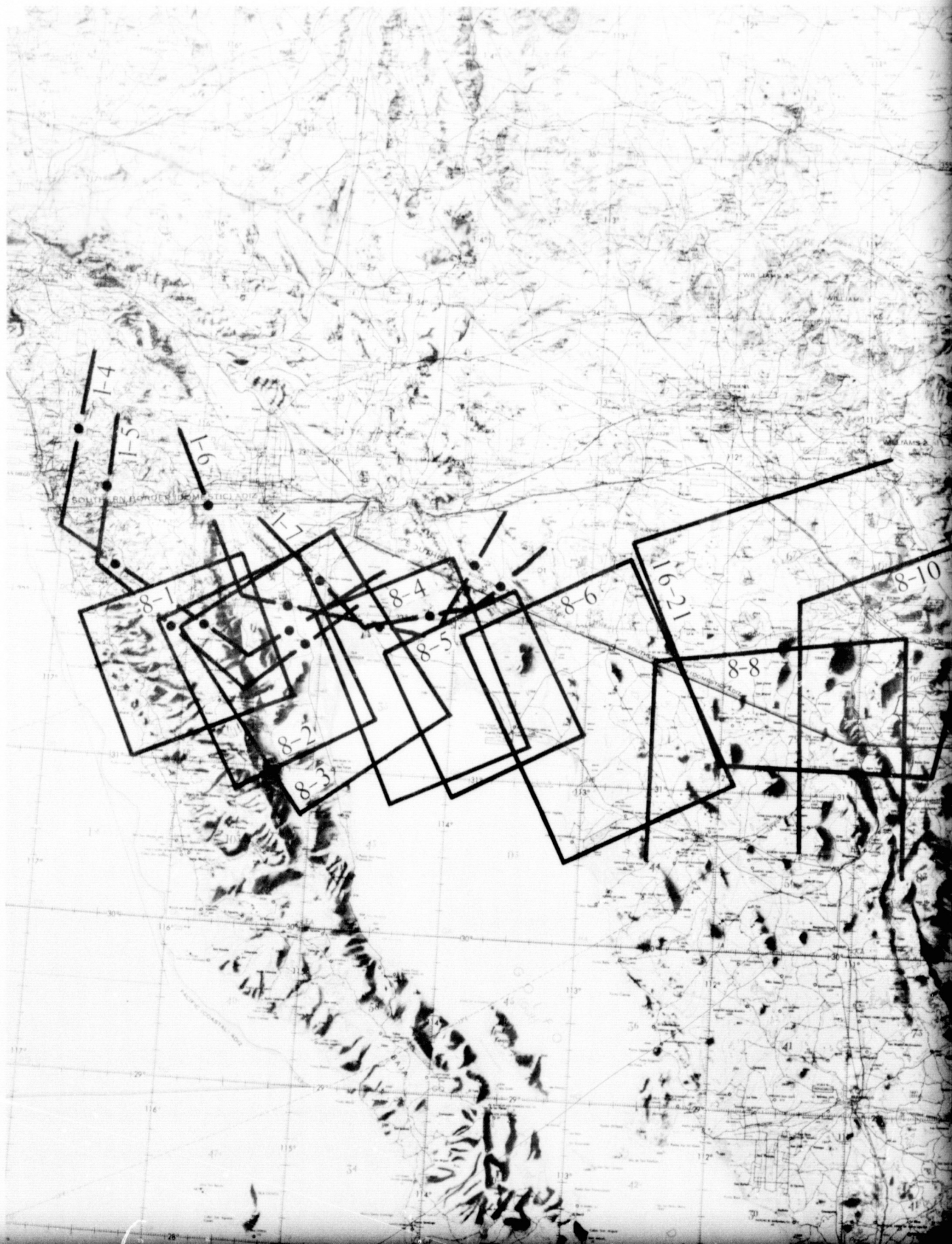


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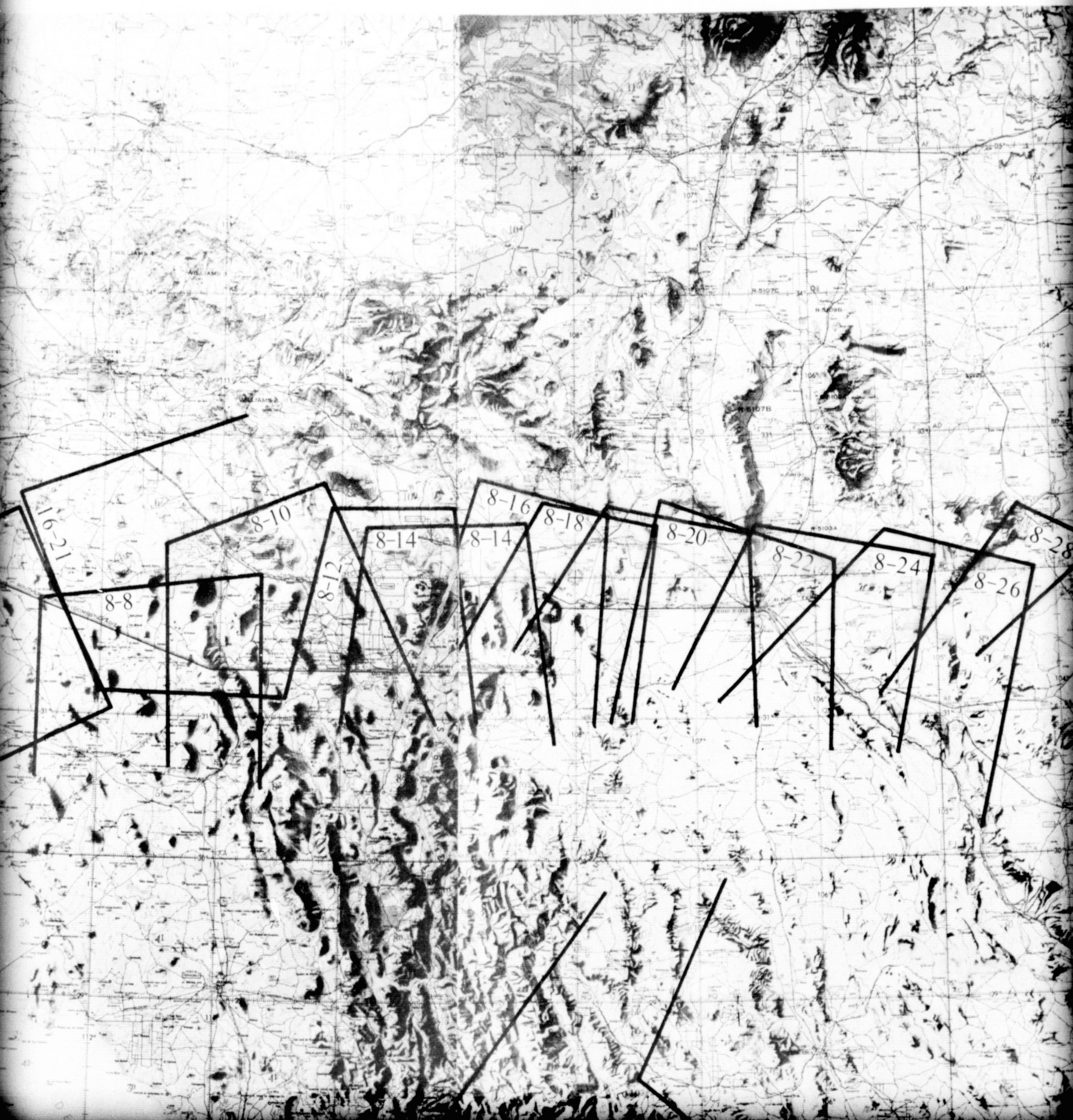


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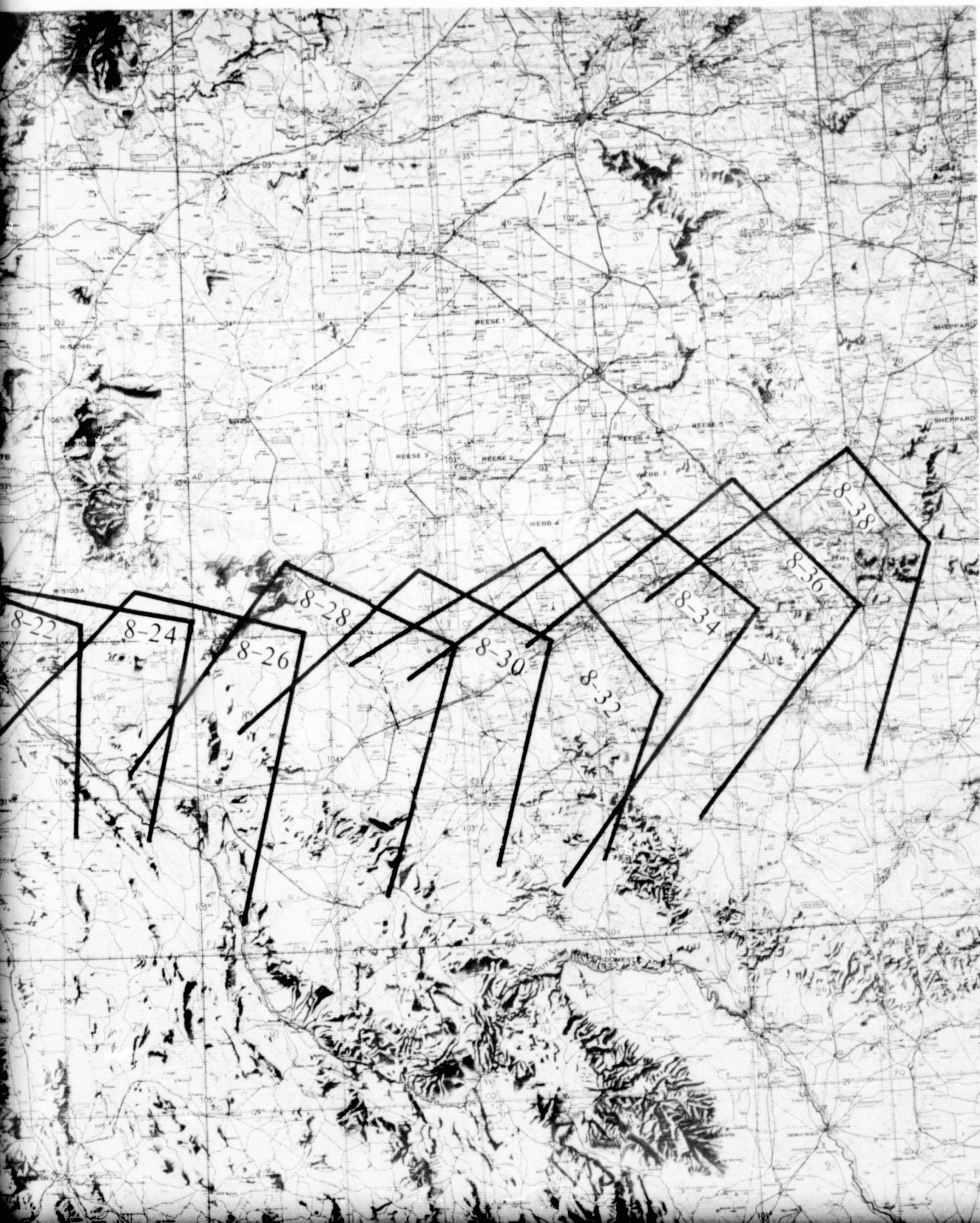
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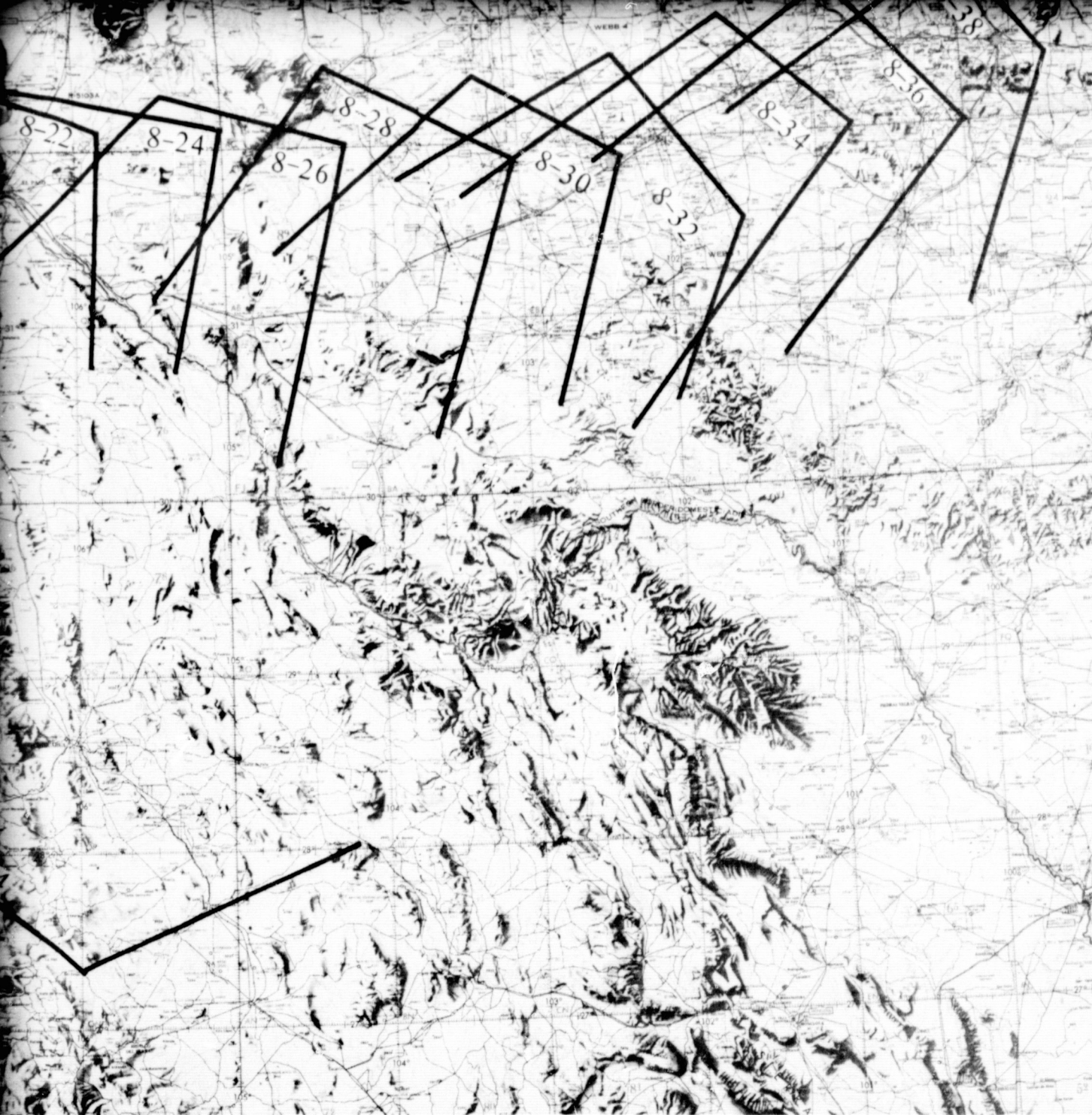


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FIGURE 2

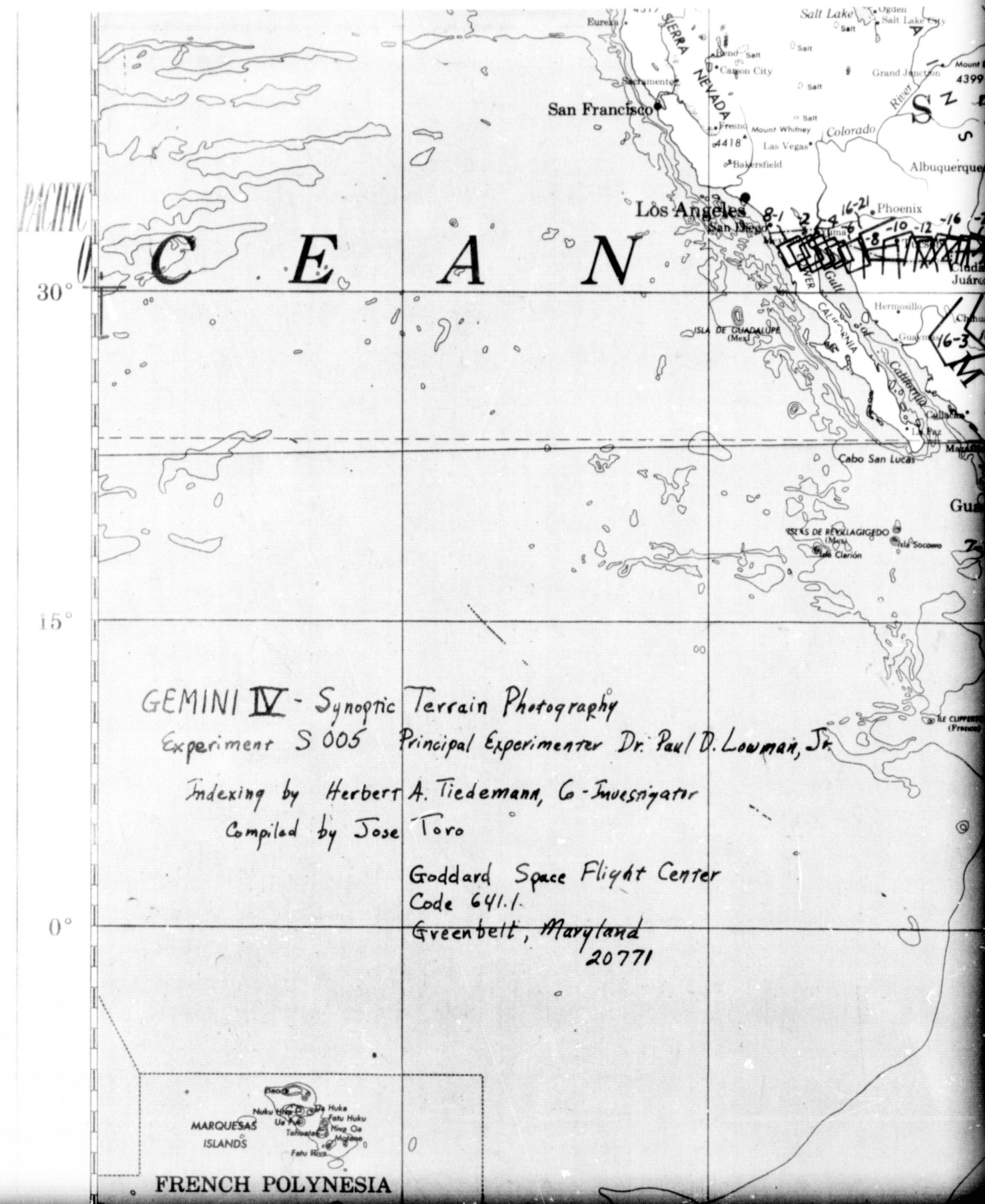
GEMINI 3 AND 4

SOUTHWEST TO CENTRAL UNITED STATES
AND ADJACENT AREAS OF MEXICO

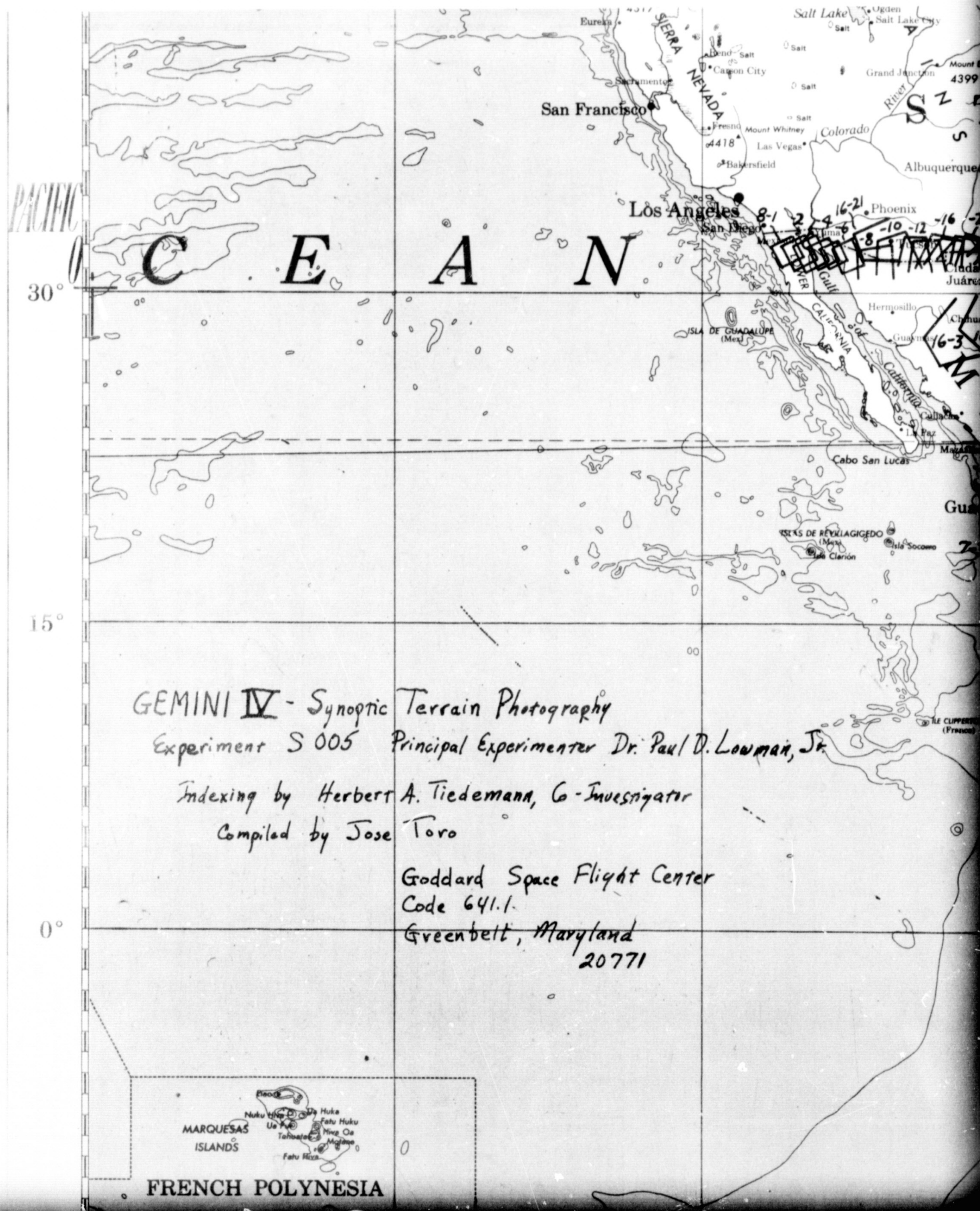


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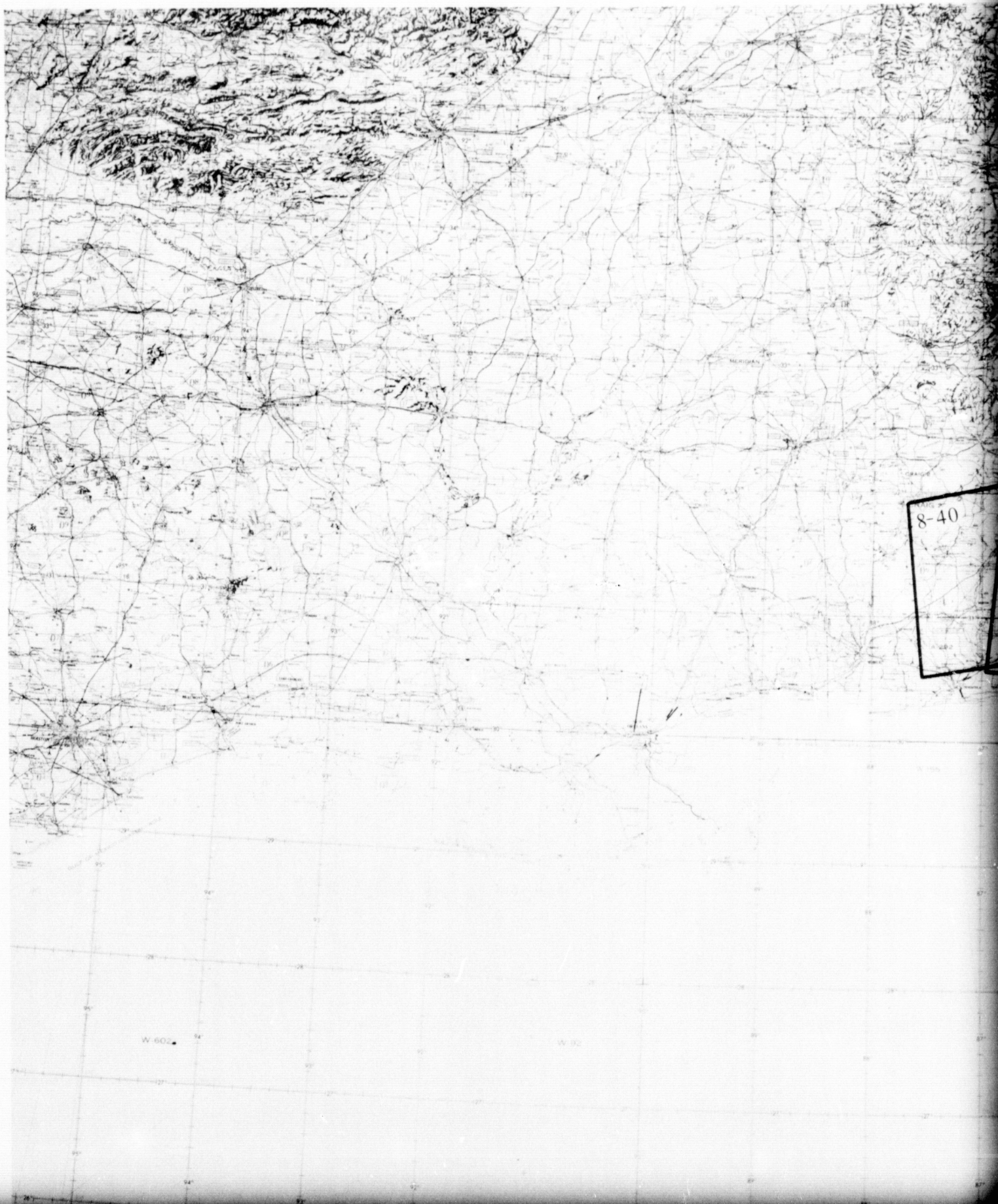


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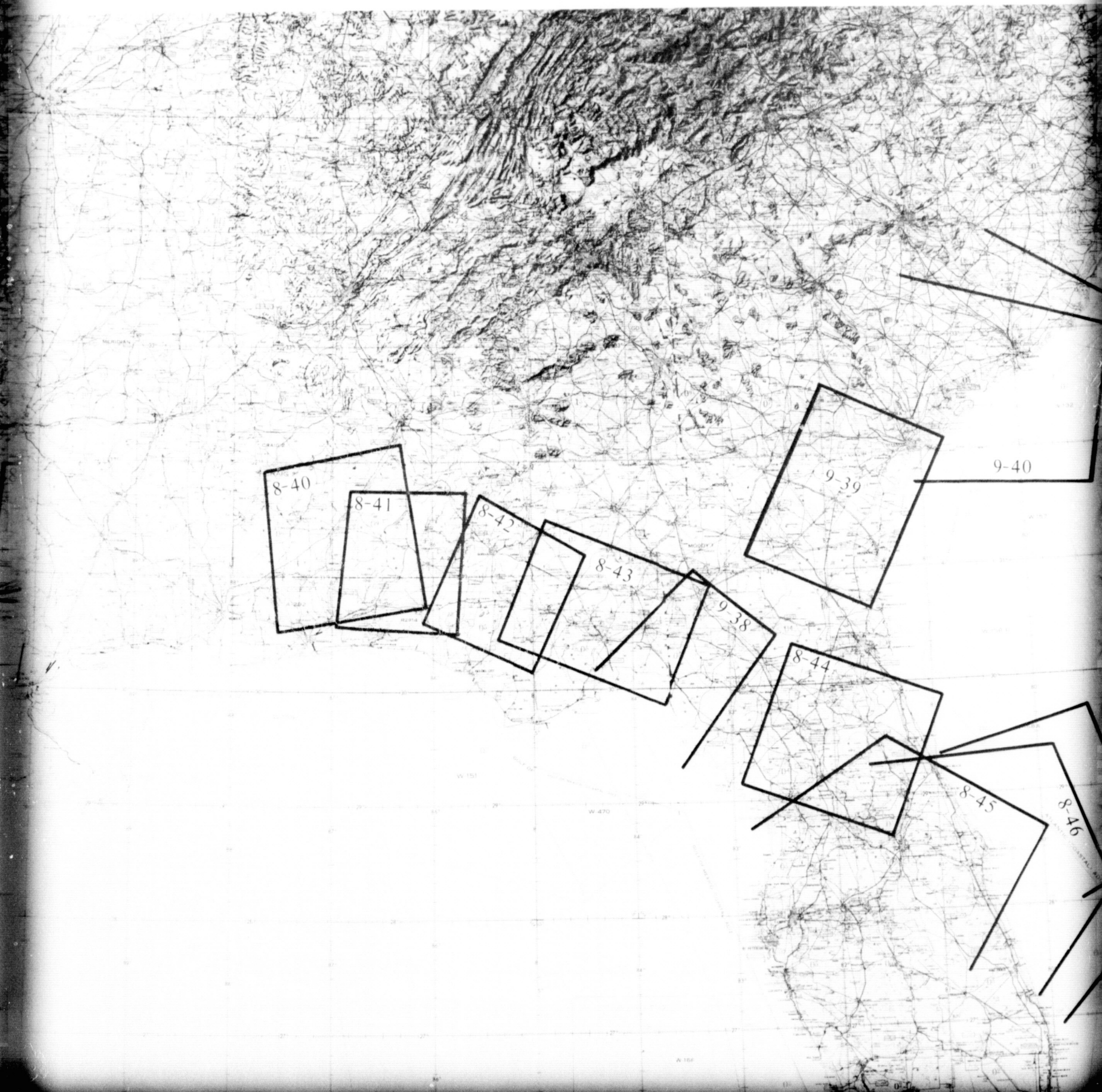


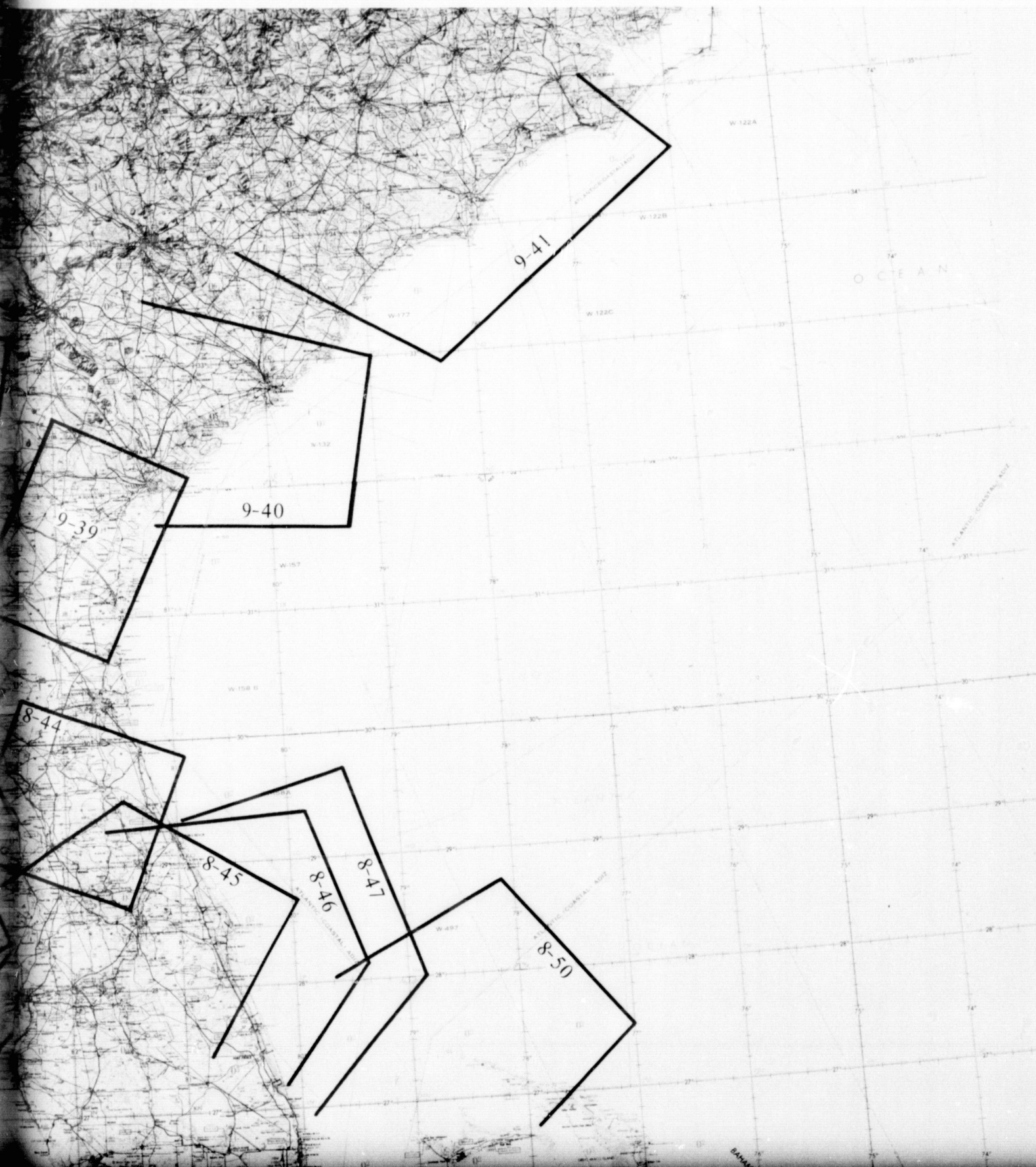
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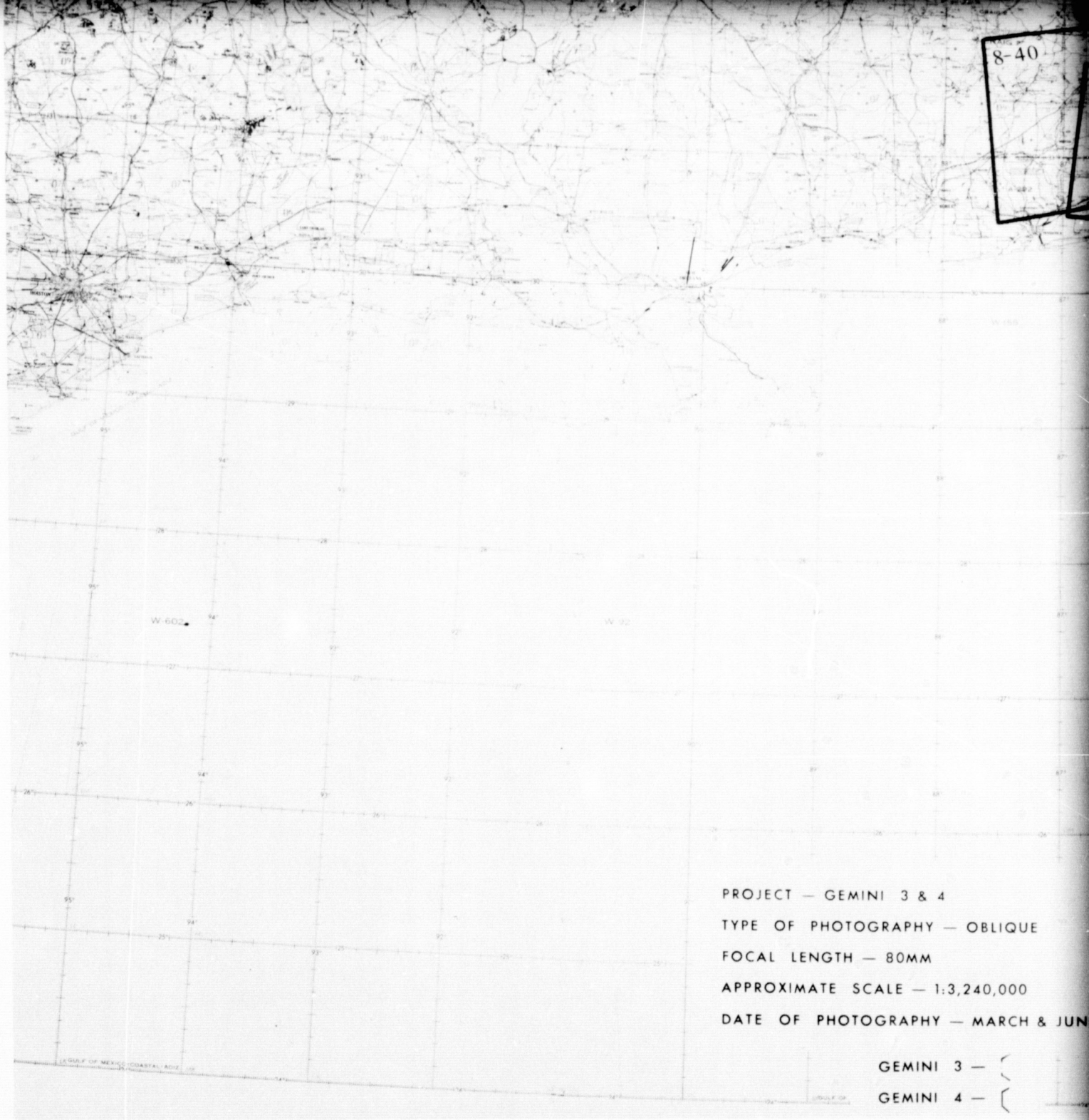


FOLDOUT FRAME 2





8-40



PROJECT — GEMINI 3 & 4

TYPE OF PHOTOGRAPHY — OBLIQUE

FOCAL LENGTH — 80MM

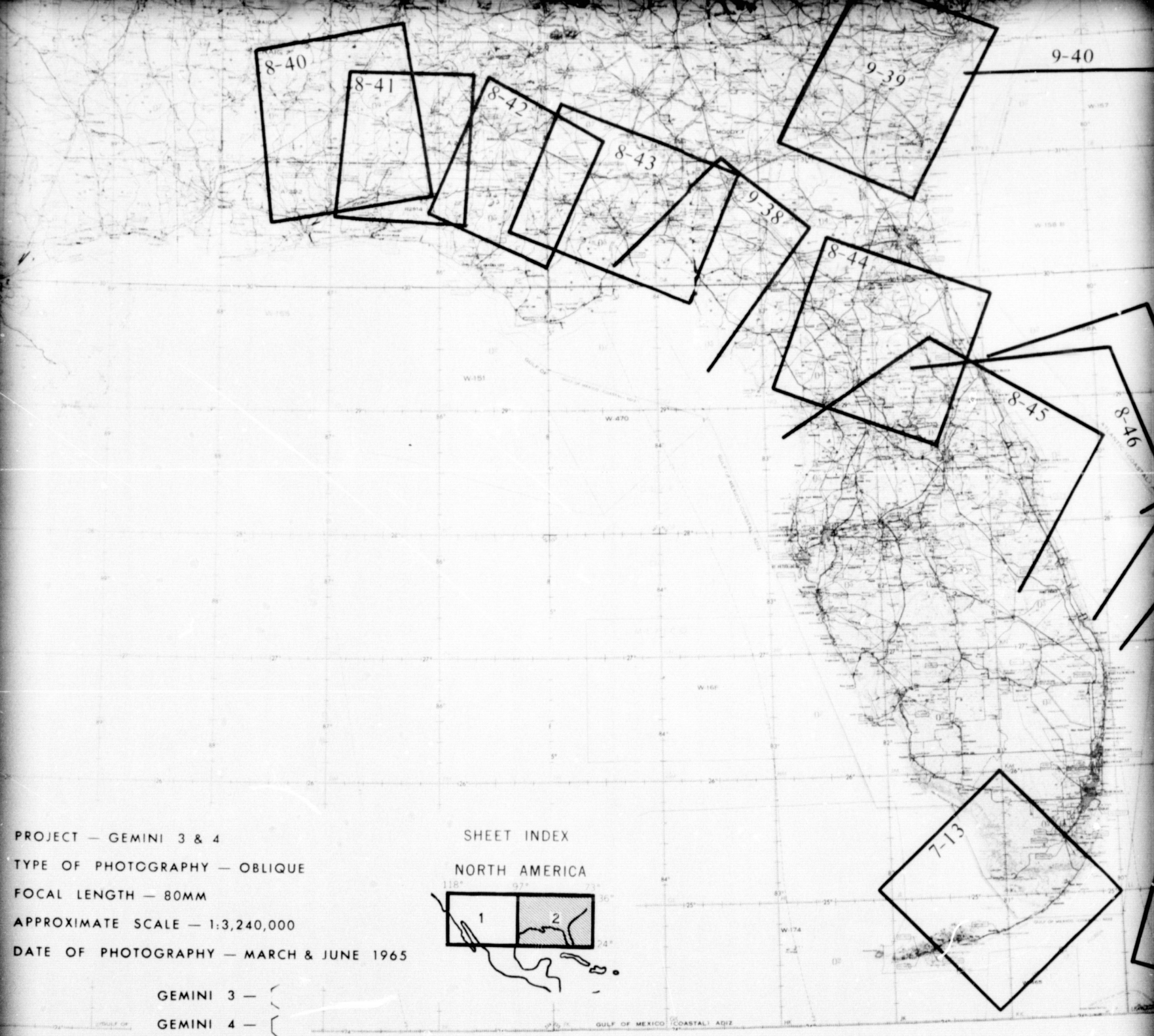
APPROXIMATE SCALE — 1:3,240,000

DATE OF PHOTOGRAPHY — MARCH & JUN

GEMINI 3 — {

GEMINI 4 — {

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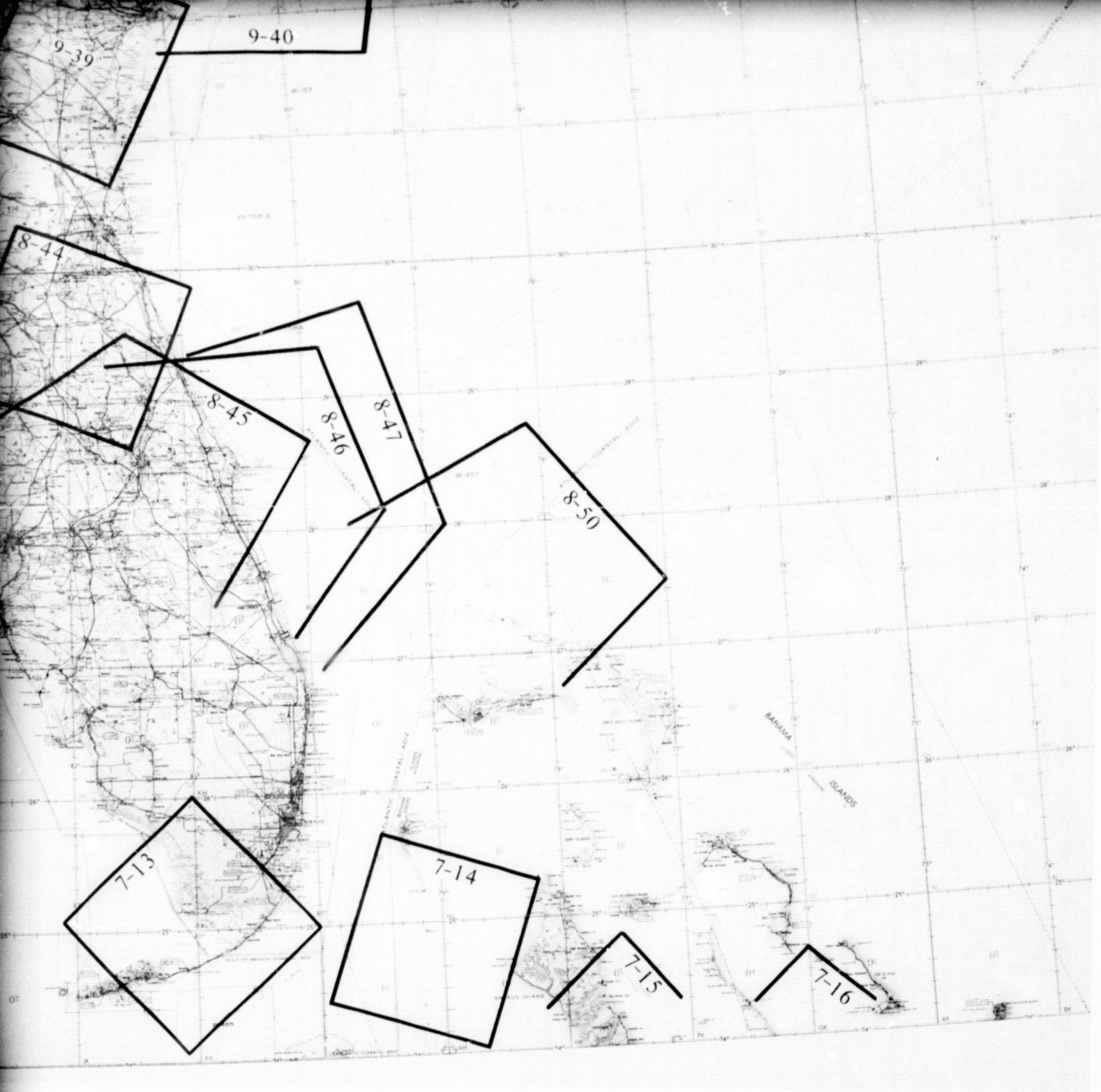


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FIGURE 4

GEMINI 4

SOUTHEAST UNITED STATES



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GEMINI V - SYNOPTIC TERRAIN PHOTOGRAPHY

Experiment S005 - Principal Investigator - Dr. Paul D. Lowman, Jr.

Indexing by Herbert A. Fiedemann, Co-Investigator

Compiled by Jose Toro

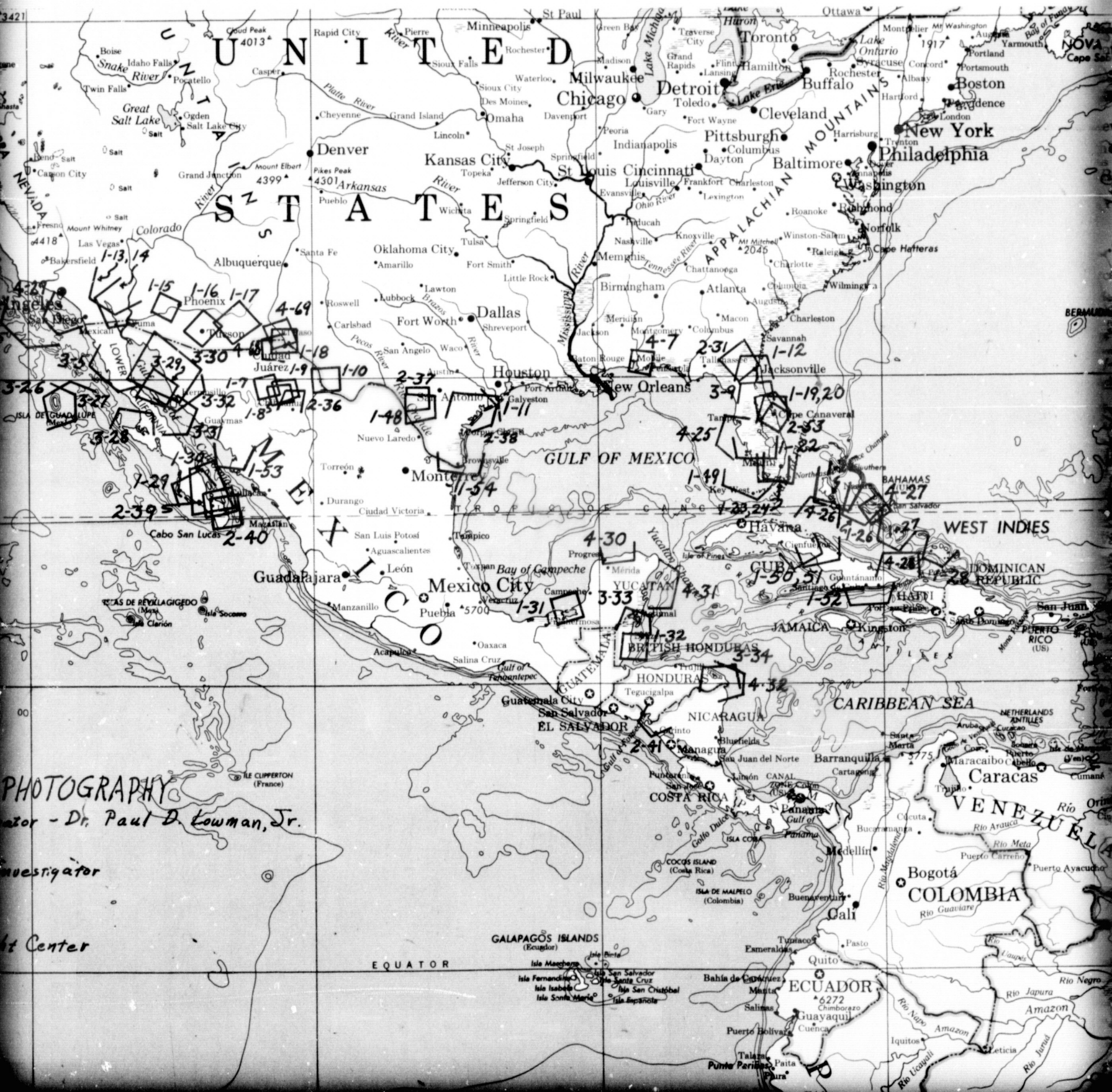
Goddard Space Flight Center
Code 641.1
Greenbelt, Maryland
20771

Experiment 5005 - Principal Investigator - Dr. Paul D. Lowman, Jr.

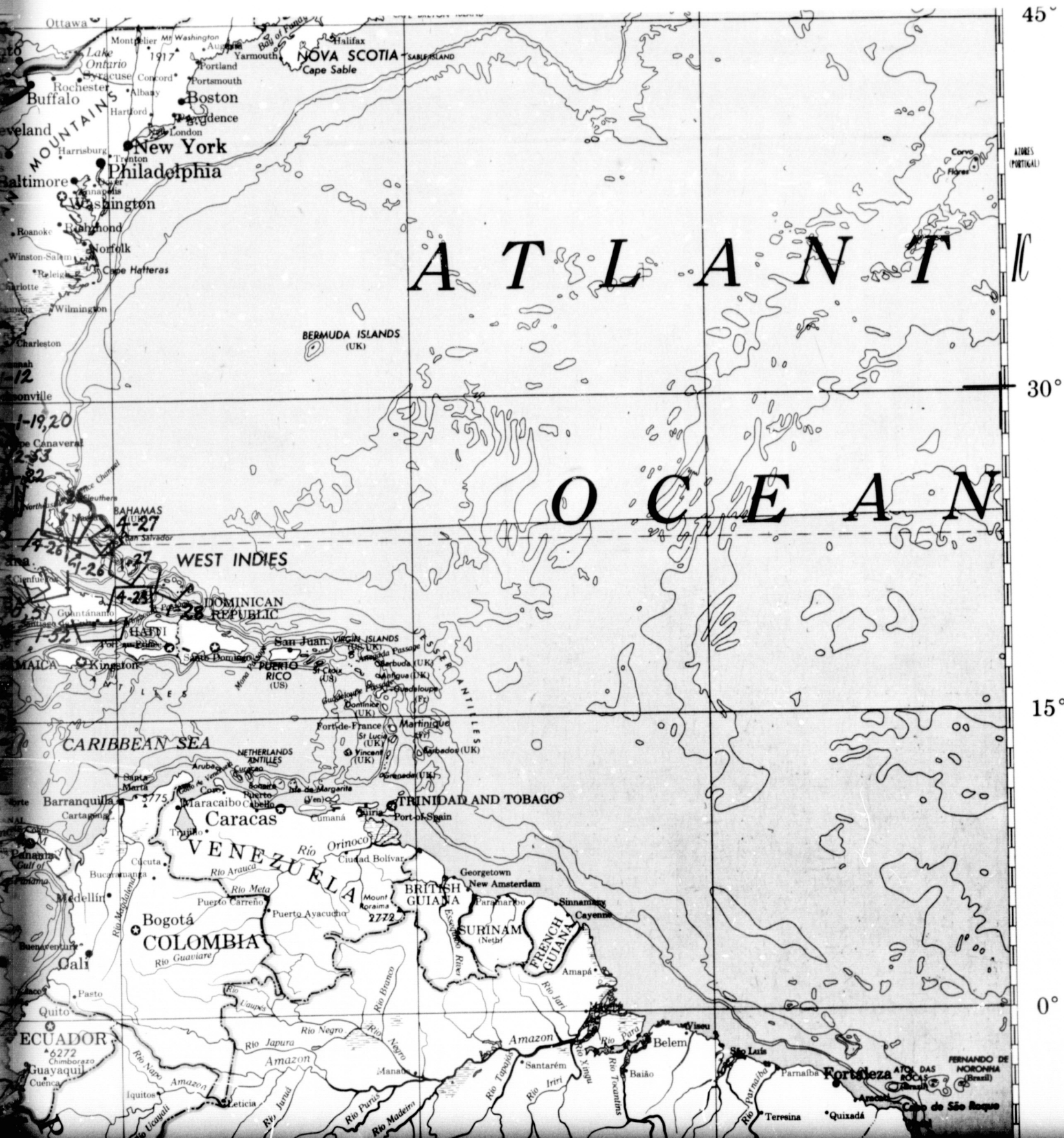
Compiled by Jose Toro

Greenbelt, Maryland
20771

FOLDOUT FRAME 2



FOLDOUT FRAME 3



GEMINI V - SYNOPSIS TERRAIN PHOTOGRAPHY

Experiment 8005 - Principal Investigator - Dr. Paul D. Lowman, Jr. GRA

Indexing by Herbert A. Piedemann, Co-Investigator

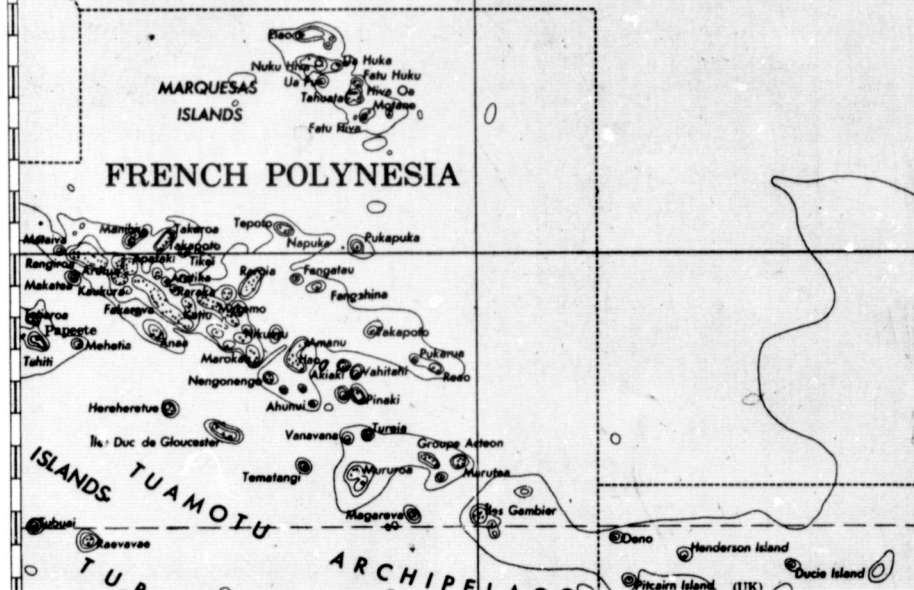
Compiled by Jose Toro

Goddard Space Flight Center

Code 641.1

Greenbelt, Maryland

20771



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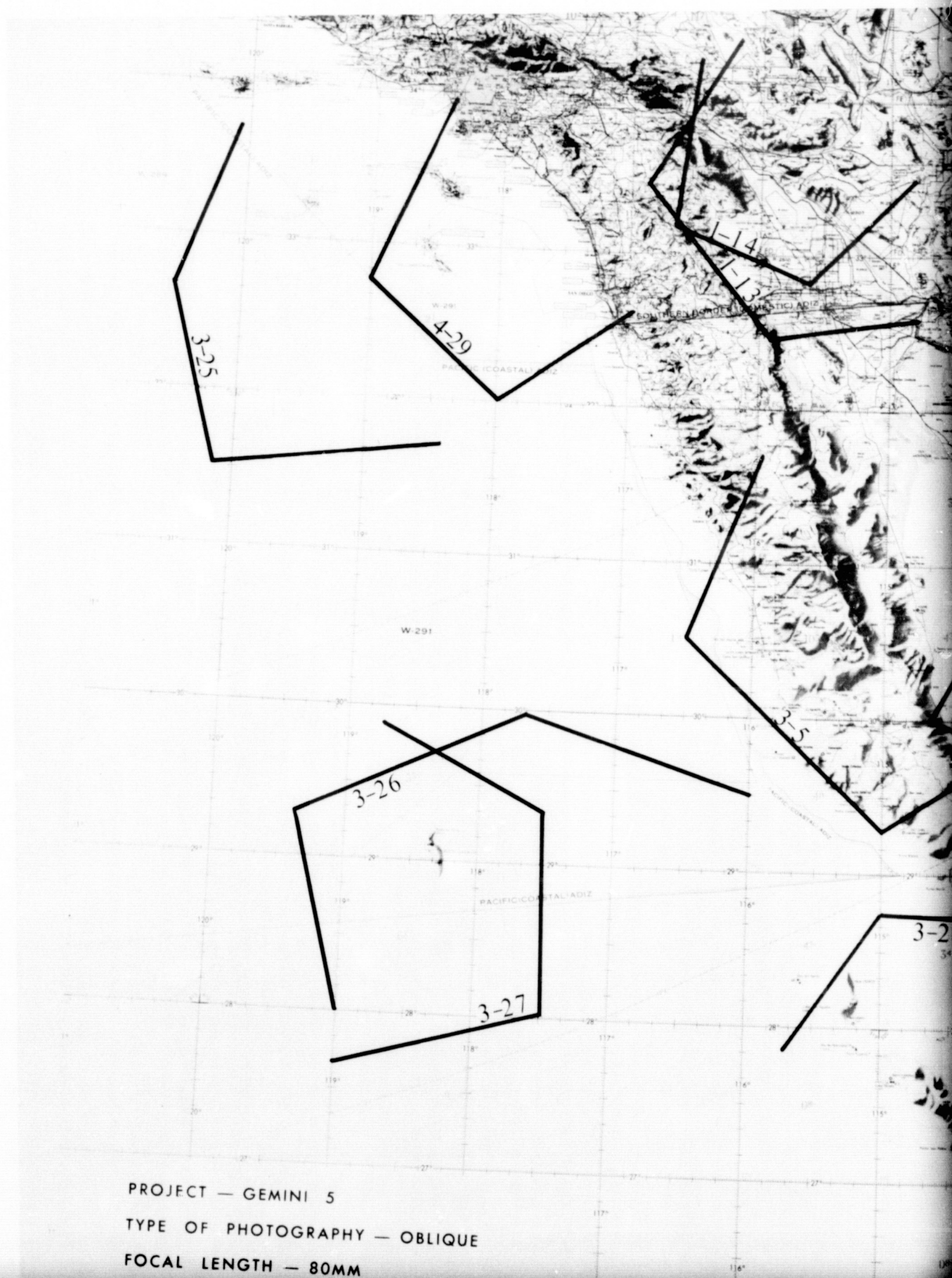
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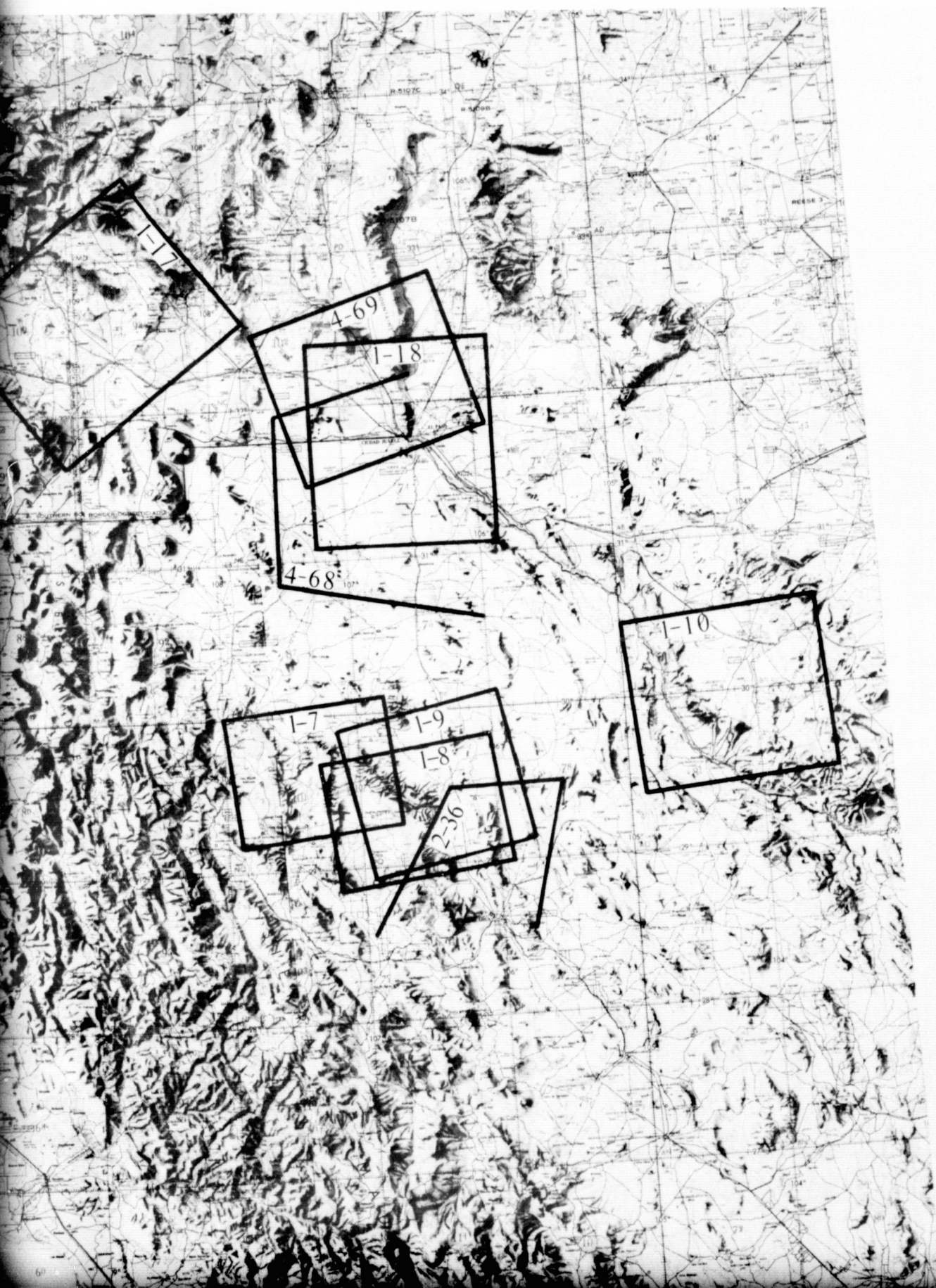
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FOLDOUT FRAME



FOLDOUT FRAME 2

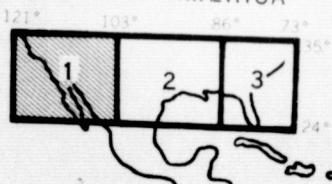




PROJECT — GEMINI 5
TYPE OF PHOTOGRAPHY — OBLIQUE
FOCAL LENGTH — 80MM
APPROXIMATE SCALE — 1:3,240,000
DATE OF PHOTOGRAPHY — AUGUST 1965

SHEET INDEX

NORTH AMERICA



FOLDOUT FRAME

4

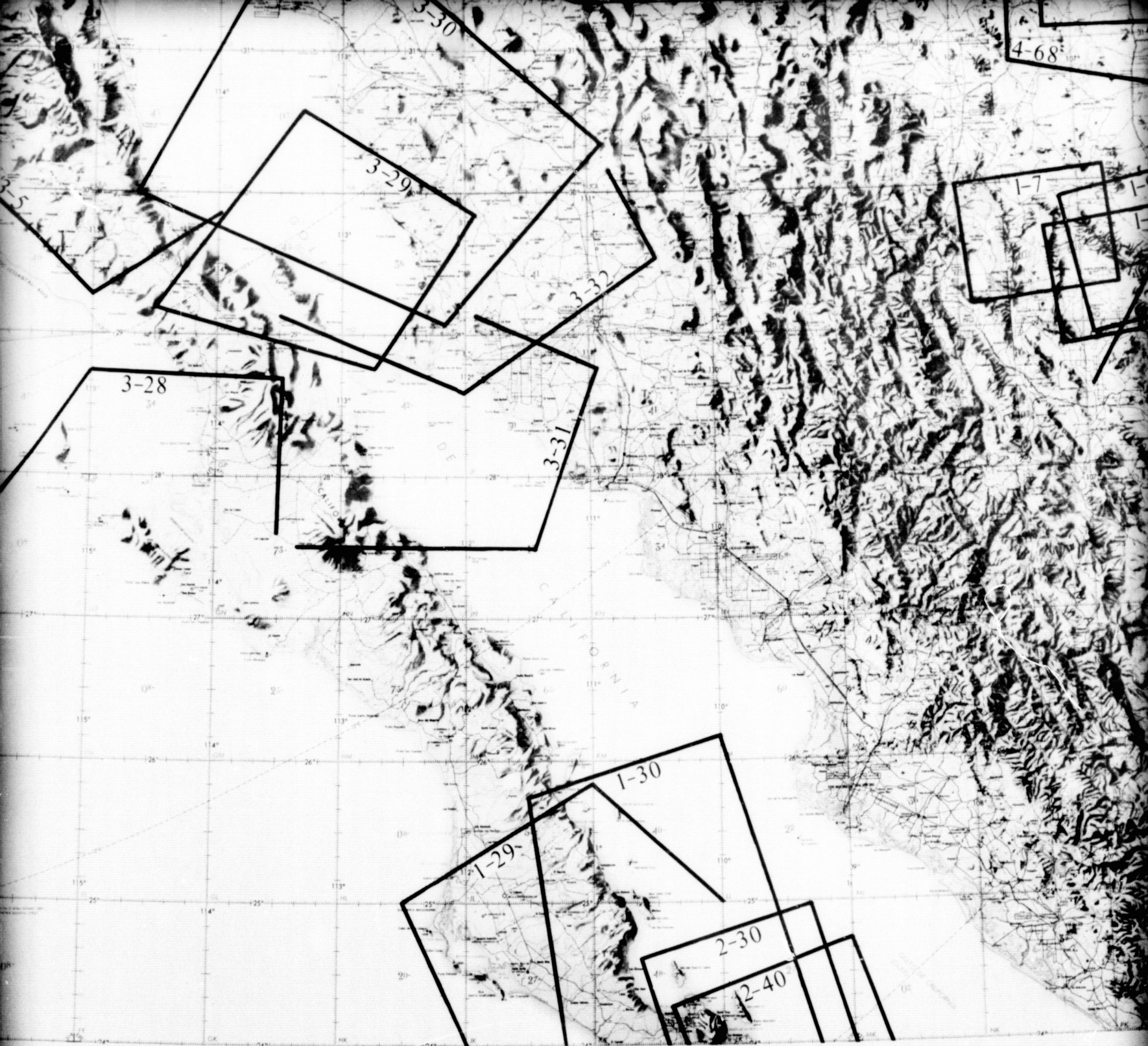
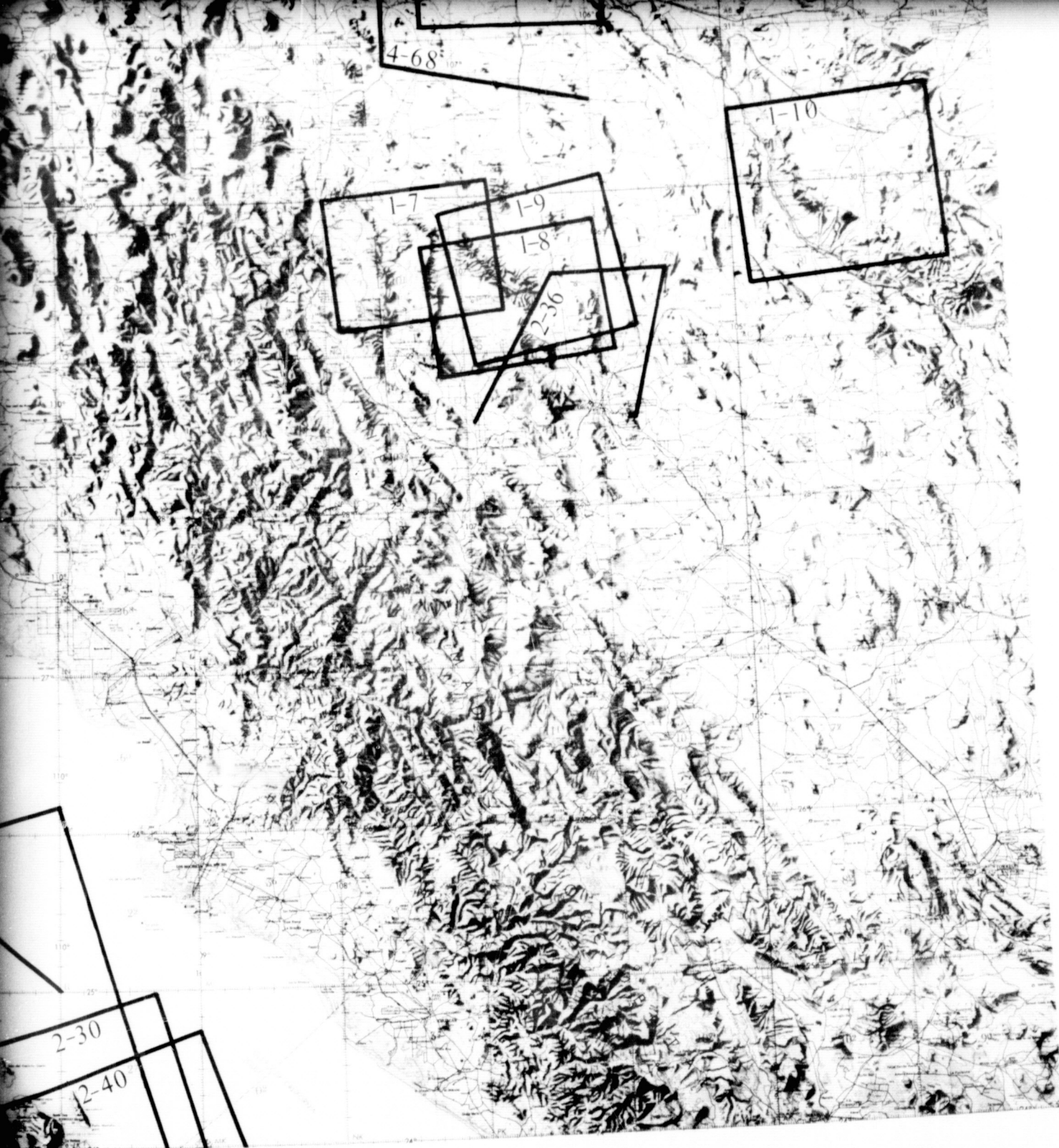


FIGURE 6

GEMINI 5

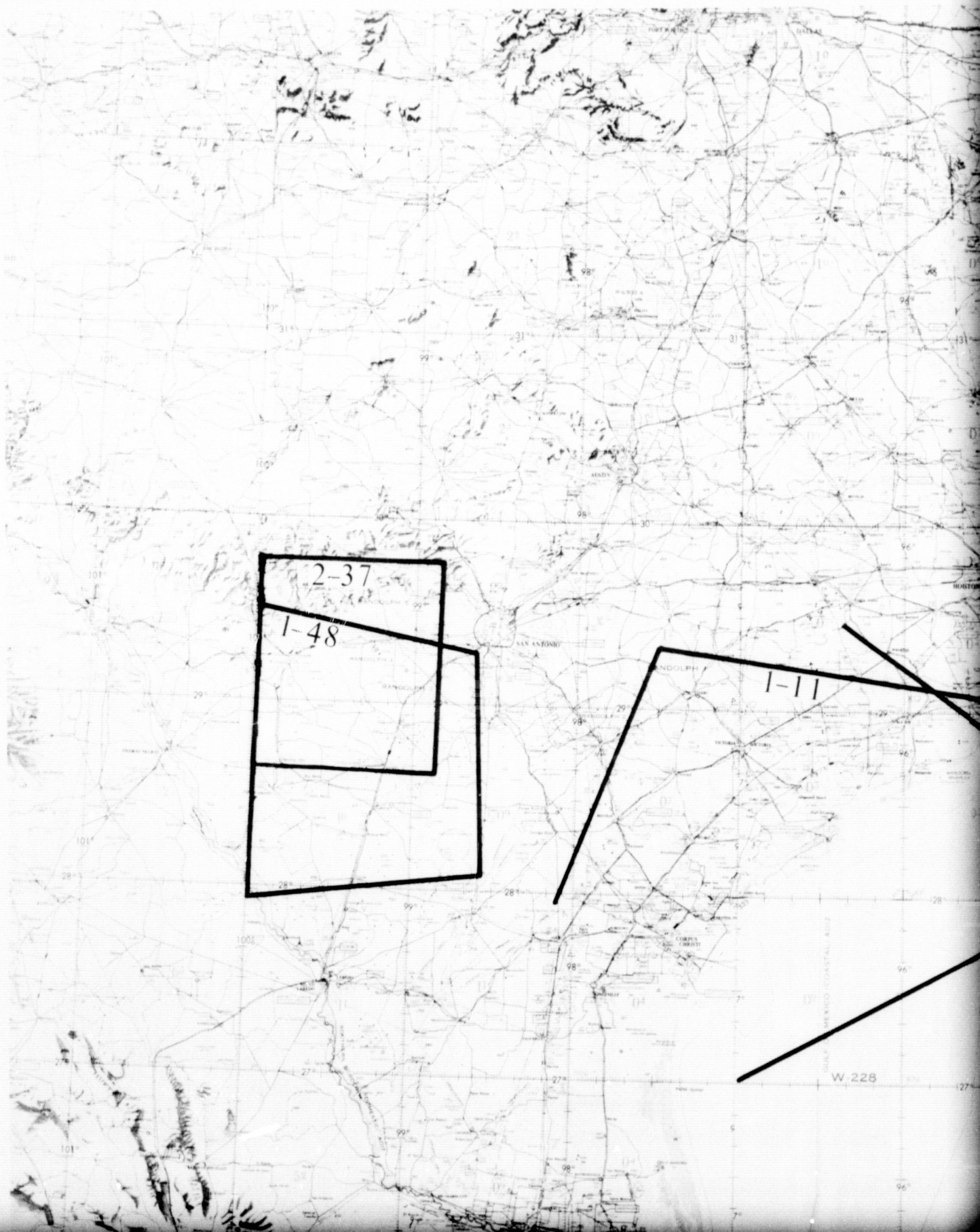
SOUTHWEST UNITED STATES
AND NORTHWEST MEXICO

FOLDOUT FRAME 5

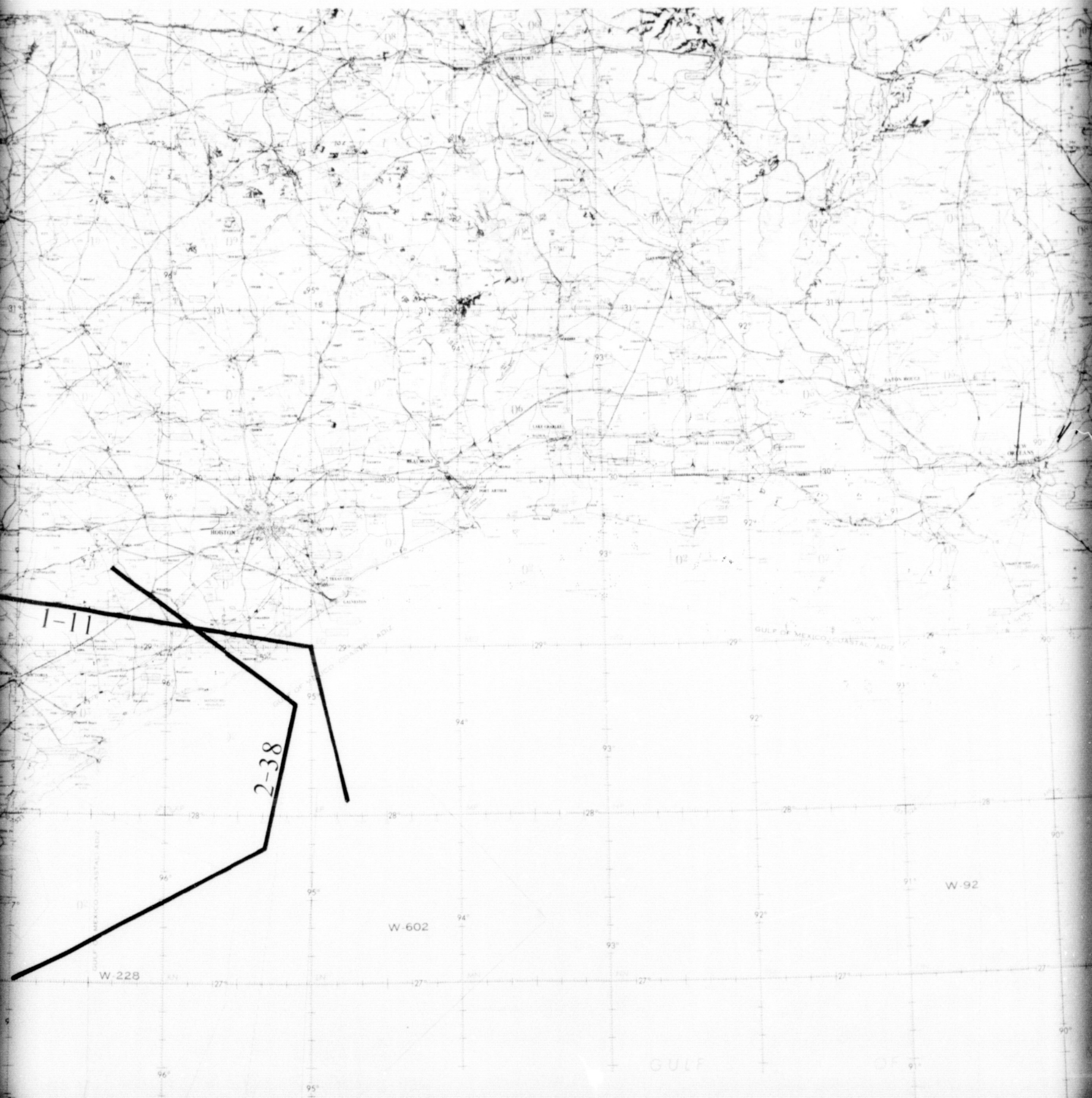


FOLDOUT FRAME 6

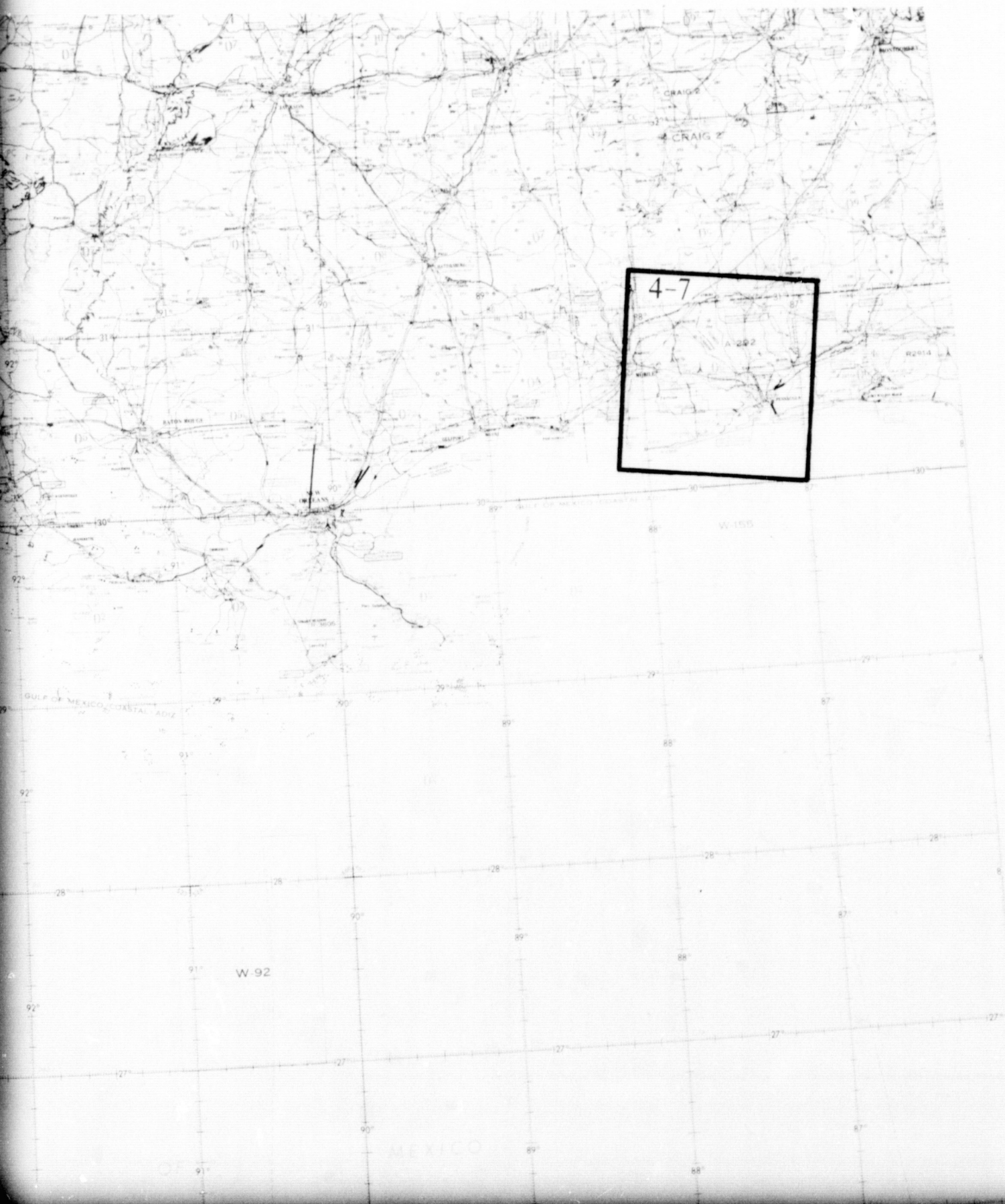
FOLDOUT FRAME /

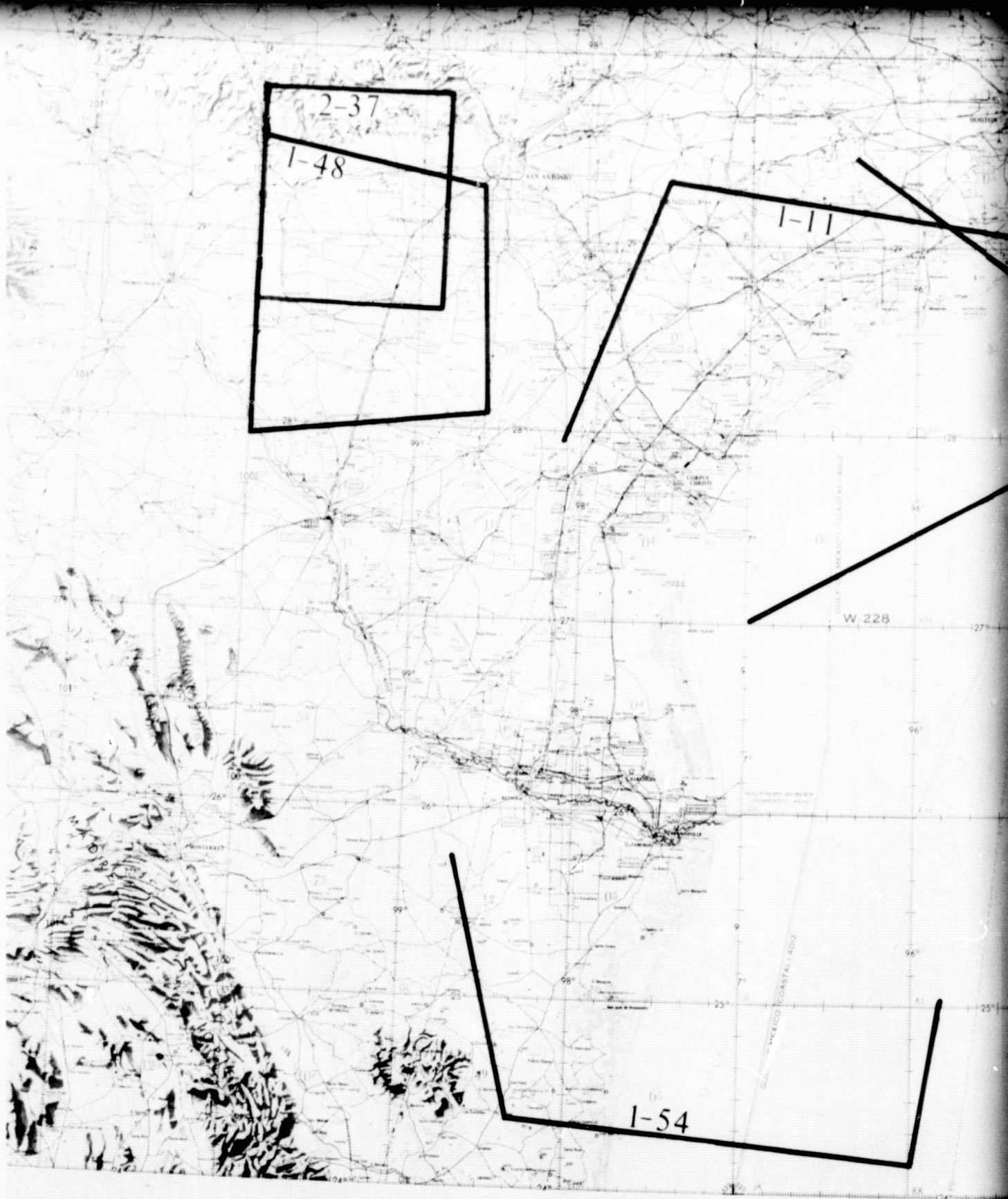


FOLDOUT FRAME 2



FOLDOUT FRAME 3





FOLDOUT FRAME 4



PROJECT — GEMINI 5

TYPE OF PHOTOGRAPHY — OBLIQUE

FOCAL LENGTH — 80MM

APPROXIMATE SCALE — 1:3,240,000

DATE OF PHOTOGRAPHY — AUGUST 1965

SHEET INDEX

NORTH AMERICA

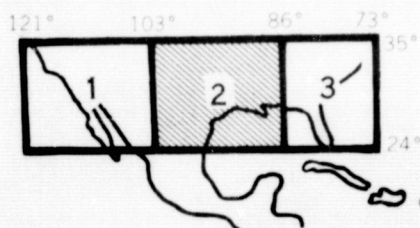
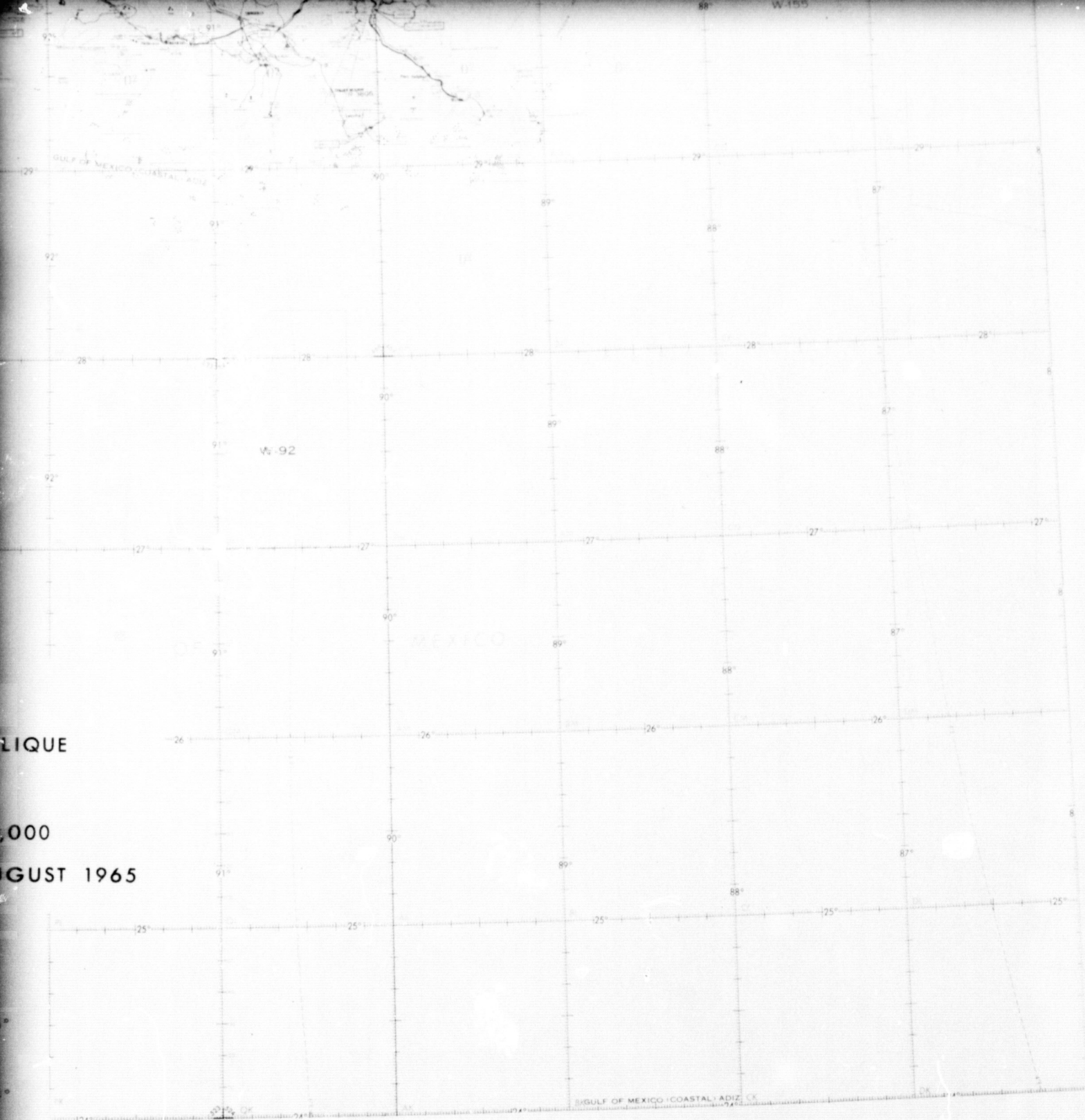


FIGURE 7

GEMINI 5

UNITED STATES GULF COAST

FOLDOUT FRAME 5



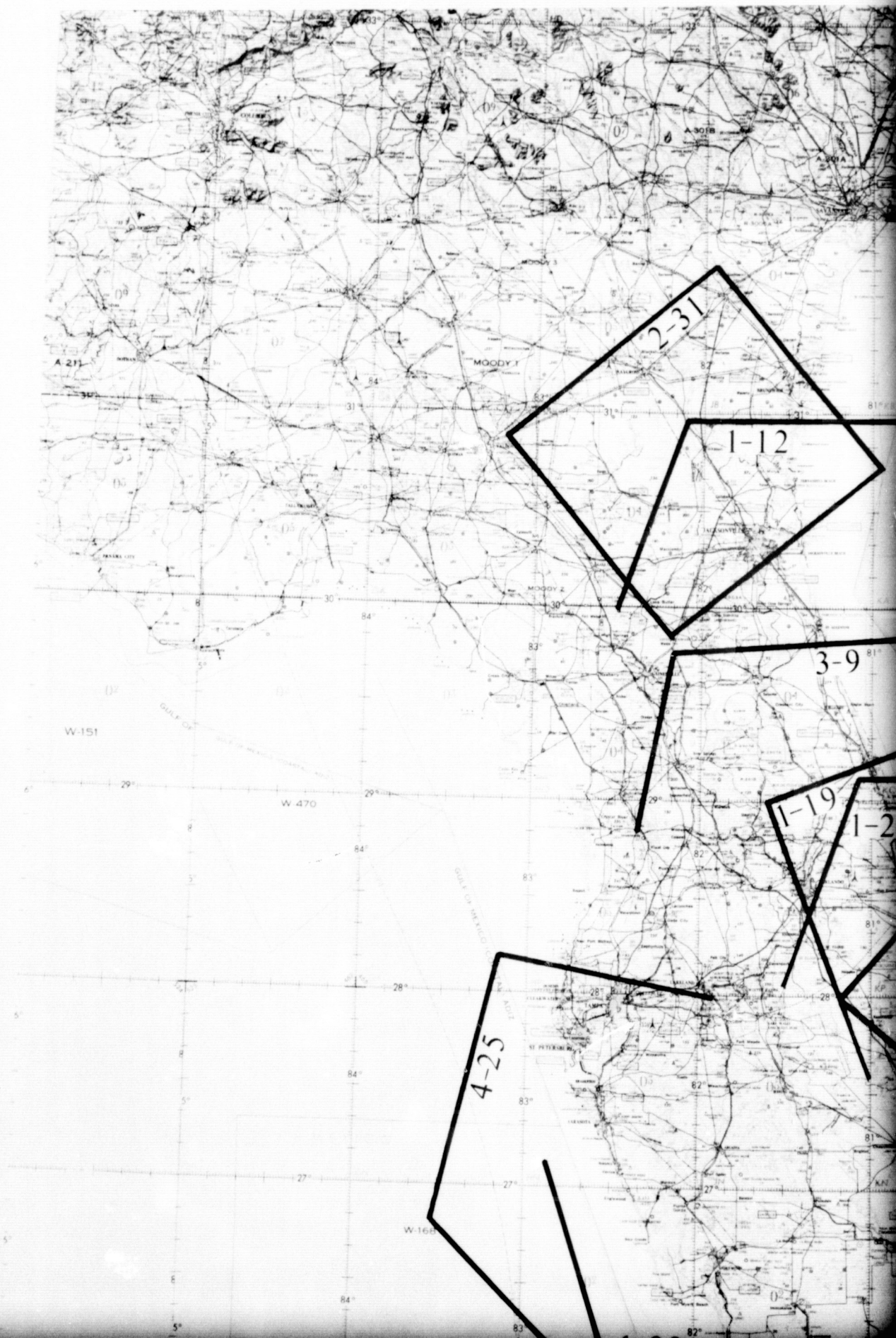
LIQUE

,000

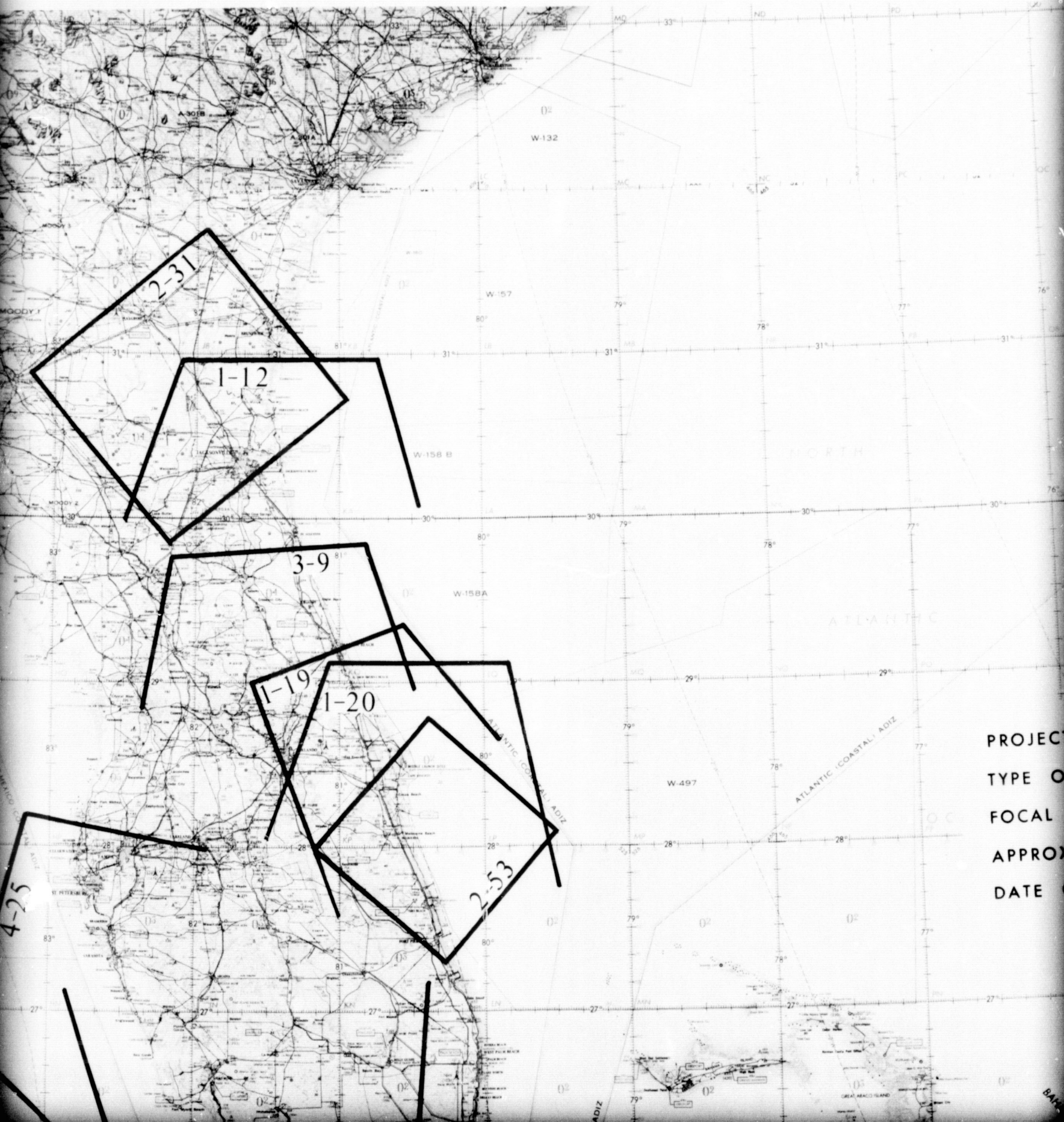
AUGUST 1965

FOLDOUT FRAME 6

FOLDOUT FRAME /

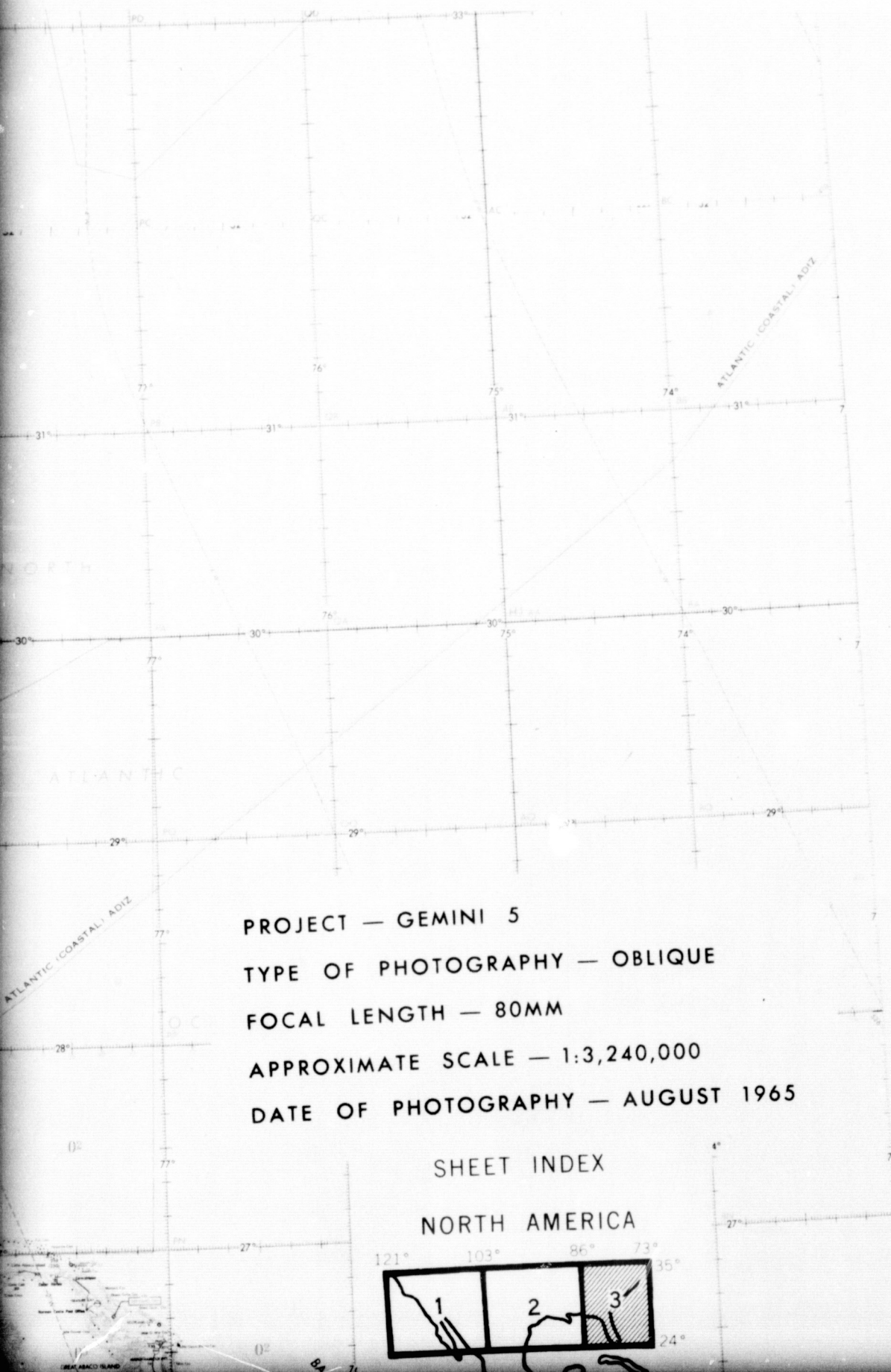


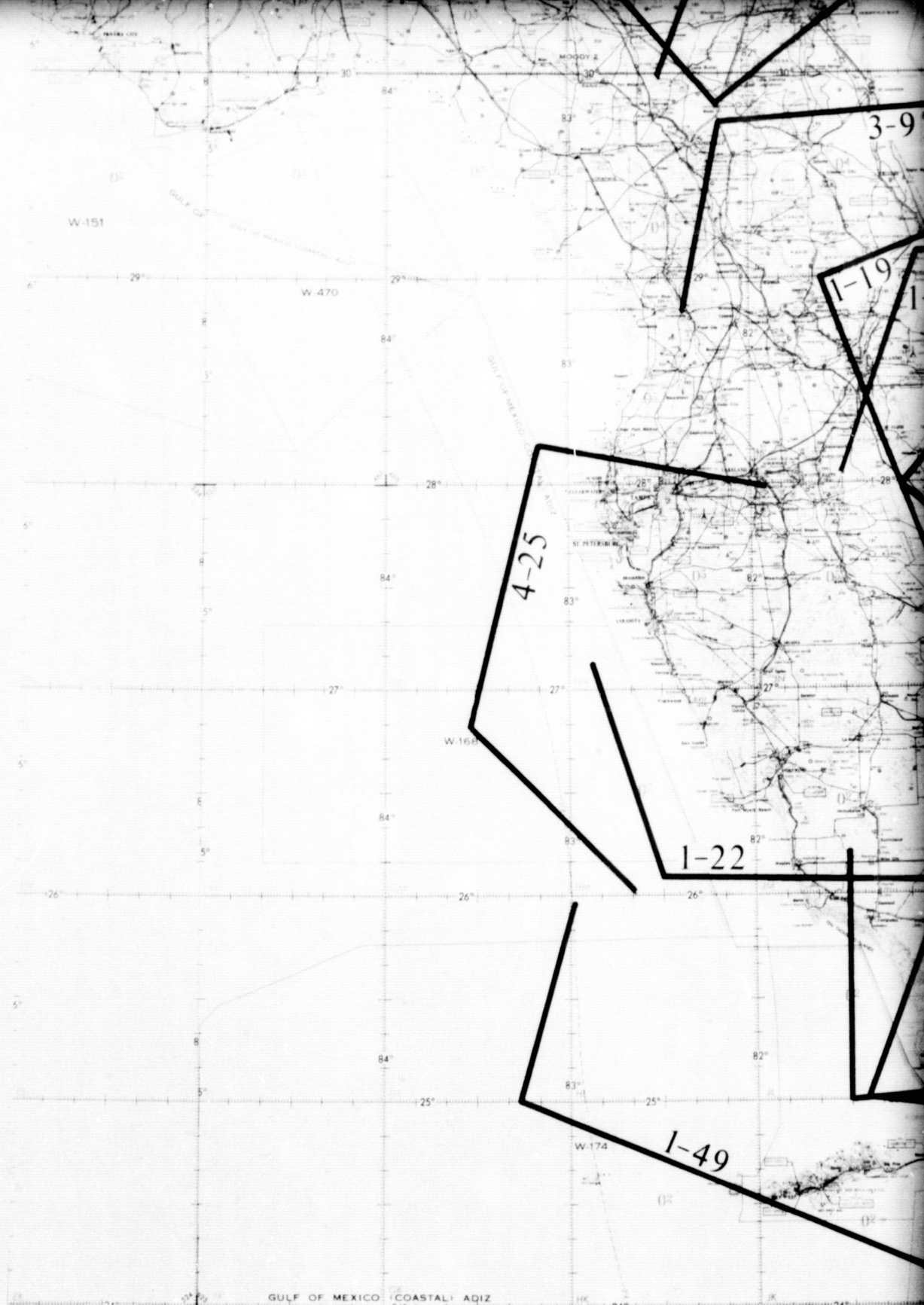
FOLDOUT FRAME 2



PROJECT
TYPE OF
FOCAL
APPROX
DATE

3 FOLDOUT FRAME





FOLDOUT FRAME 4

PROJECT — GEMINI 5

TYPE OF PHOTOGRAPHY — OBLIQUE

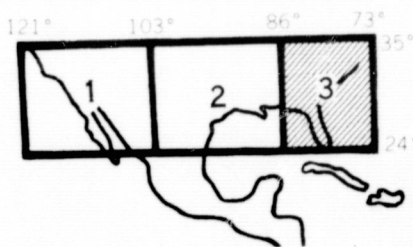
FOCAL LENGTH — 80MM

APPROXIMATE SCALE — 1:3,240,000

DATE OF PHOTOGRAPHY — AUGUST 1965

SHEET INDEX

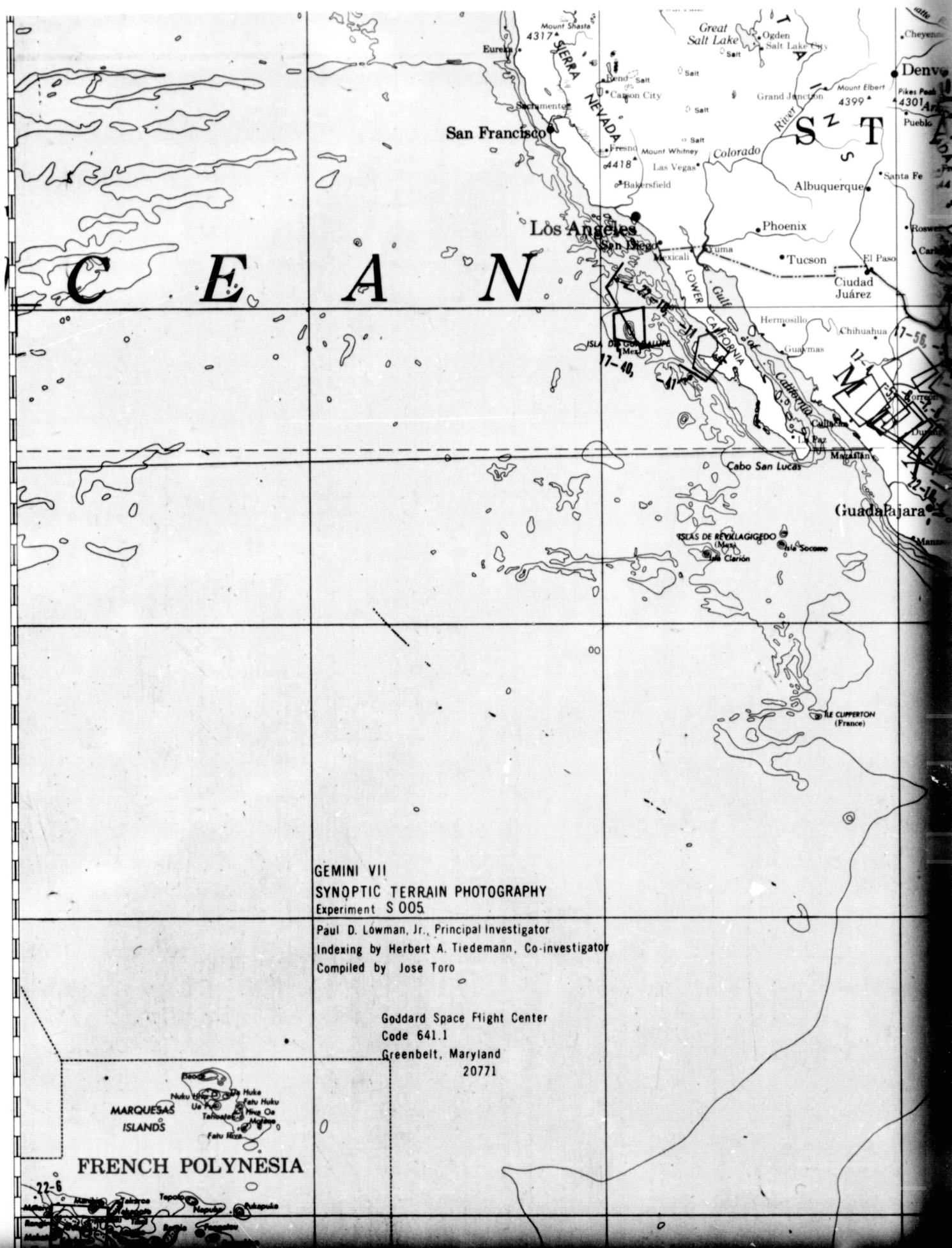
NORTH AMERICA



4-27

FOLDOUT FRAME 6

FOLDOUT FRAME



GEMINI VII
SYNOPSIS TERRAIN PHOTOGRAPHY
Experiment S 005

Paul D. Lowman, Jr., Principal Investigator
Indexing by Herbert A. Tiedemann, Co-investigator
Compiled by Jose Toro

Goddard Space Flight Center
Code 641.1
Greenbelt, Maryland
20771

MARQUESAS ISLANDS
FRENCH POLYNESIA

FOLDOUT FRAME 2

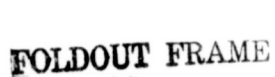


FOLDOUT FRAME 3



Paul D. Lowman, Jr., Principal Investigator
Indexing by Herbert A. Tiedemann, Co-investigator
Compiled by Jose Toro

Goddard Space Flight Center
Code 641.1
Greenbelt, Maryland
20771



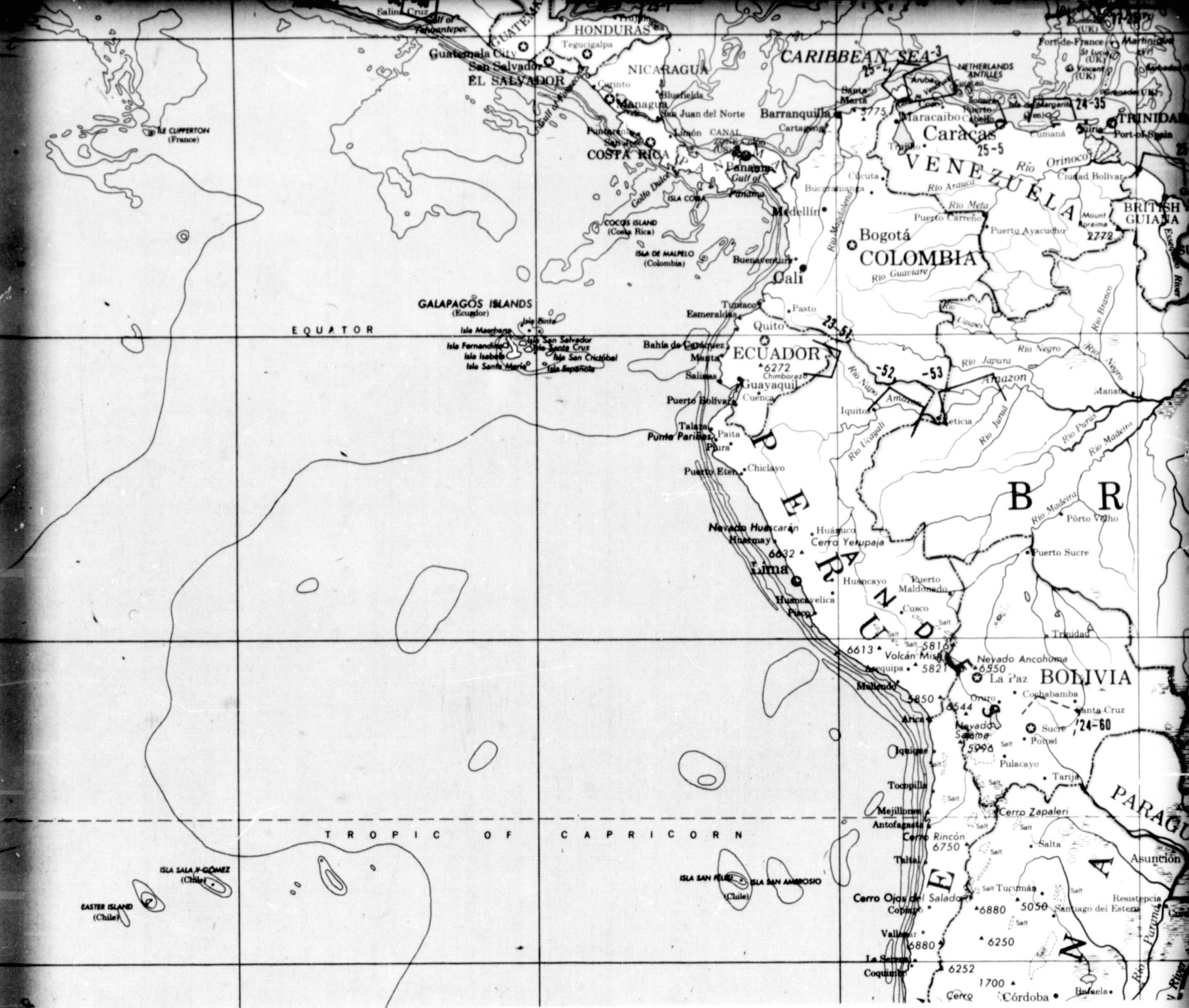


FIGURE 9

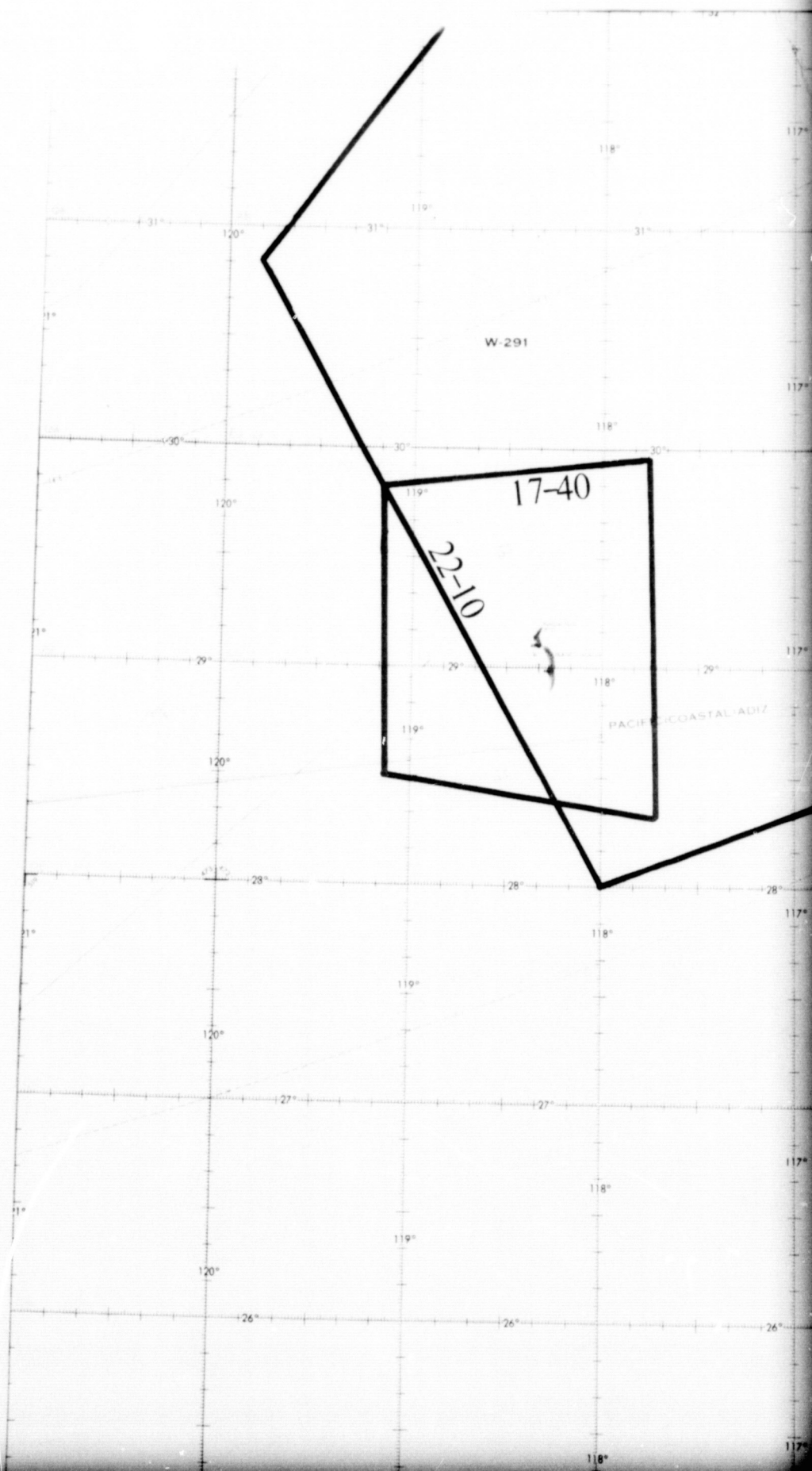
GEMINI 7

WESTERN HEMISPHERE AND EASTERN PACIFIC OCEAN

FOLDOUT FRAME

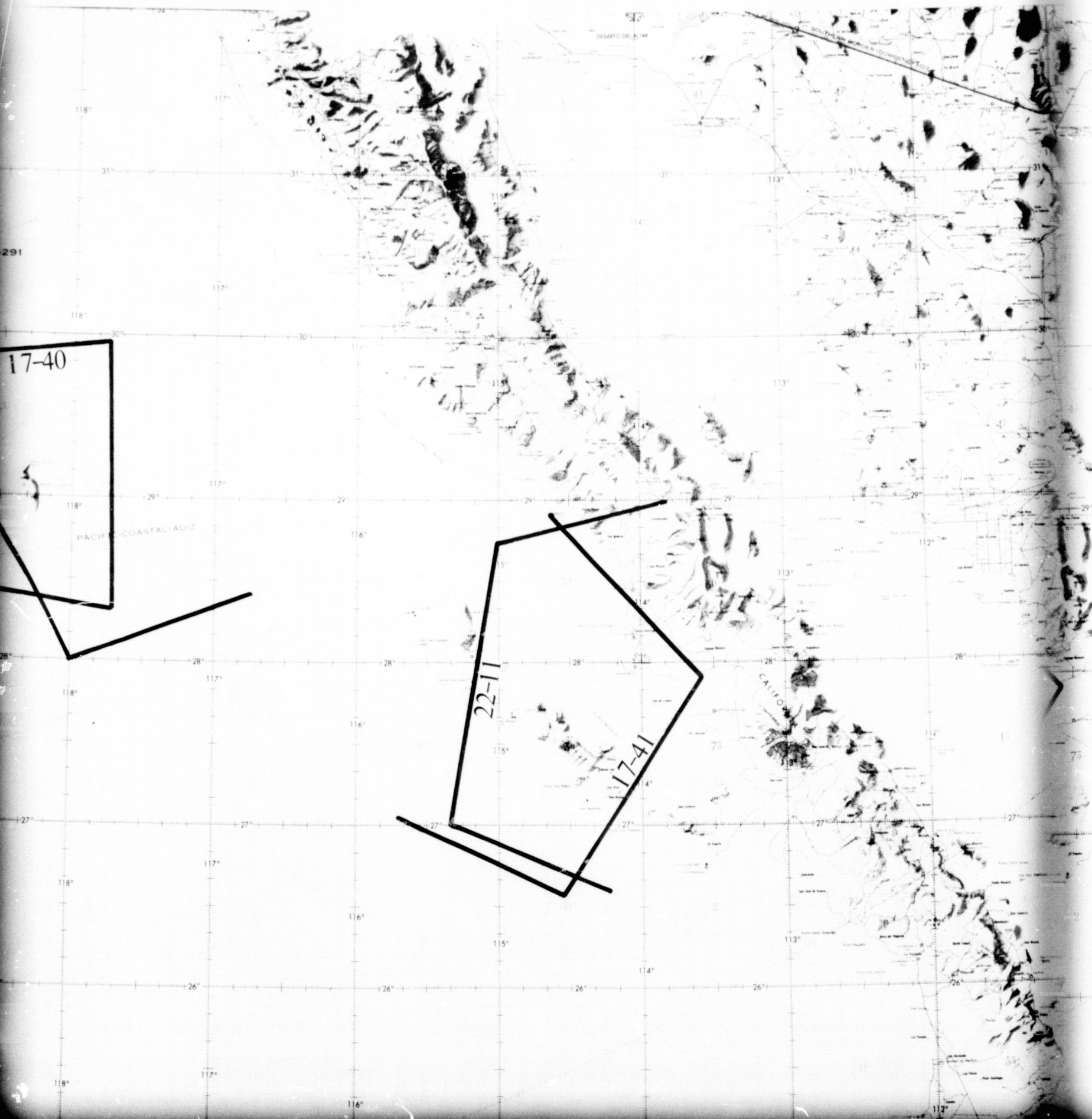
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FOLDOUT FRAME

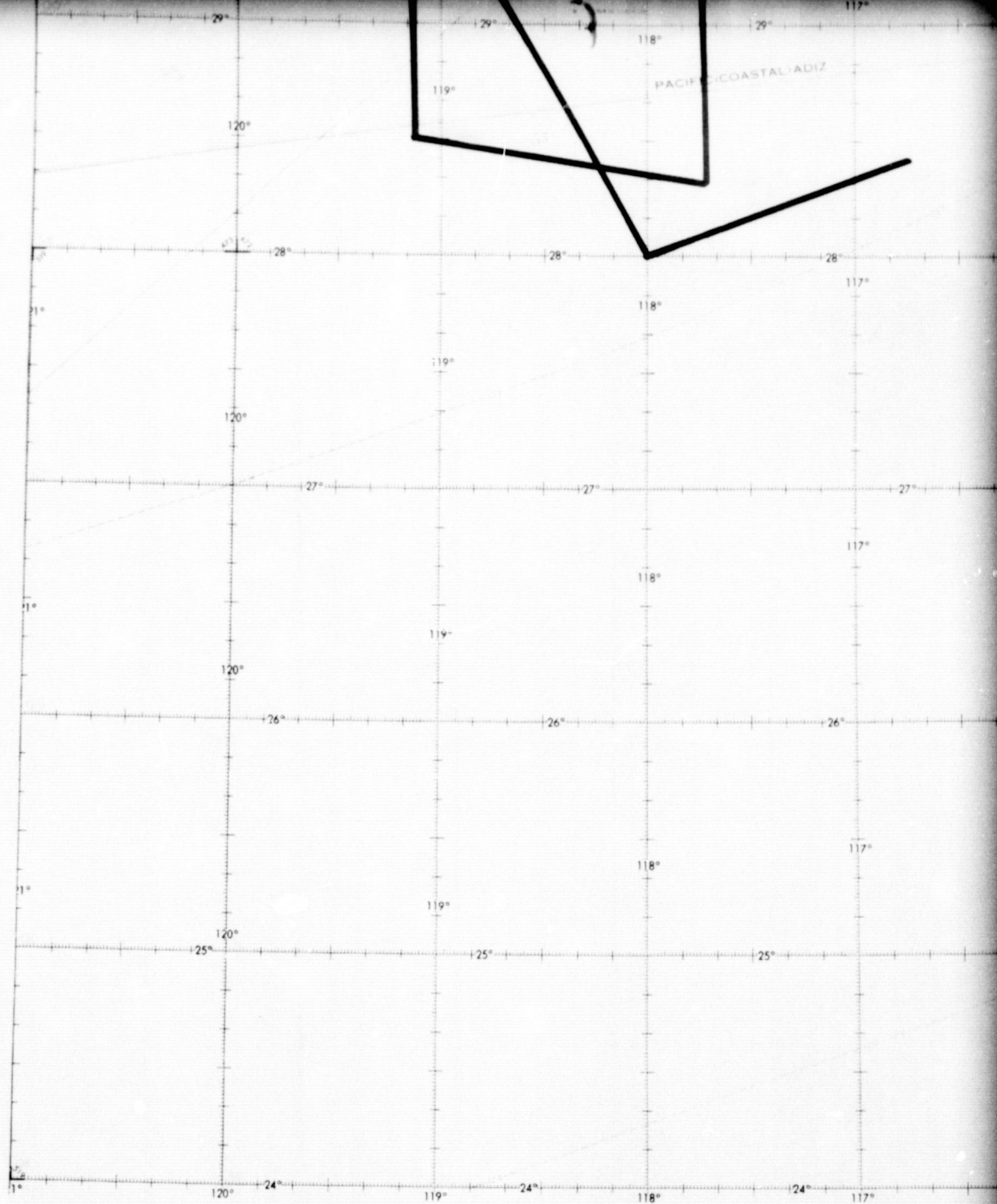


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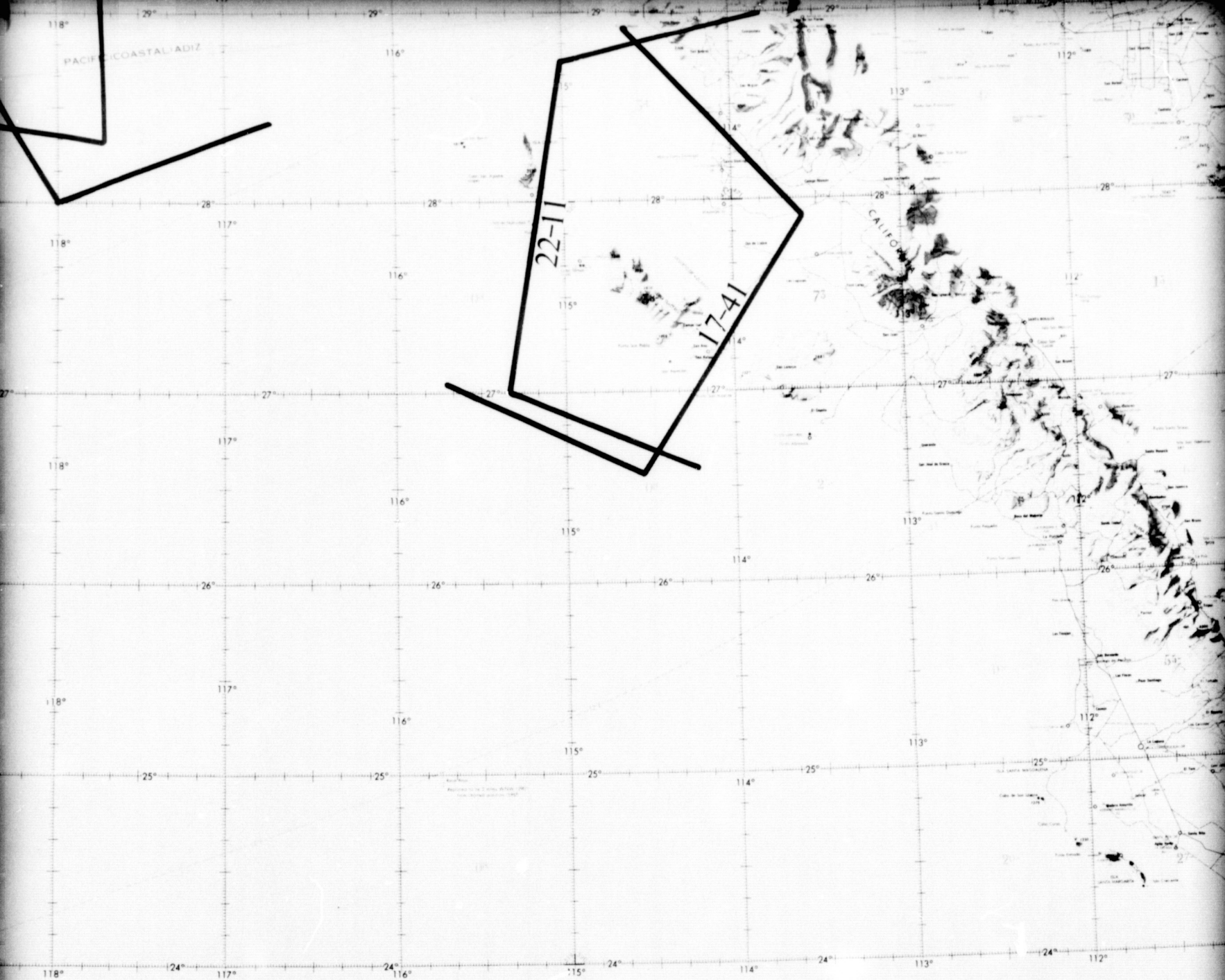
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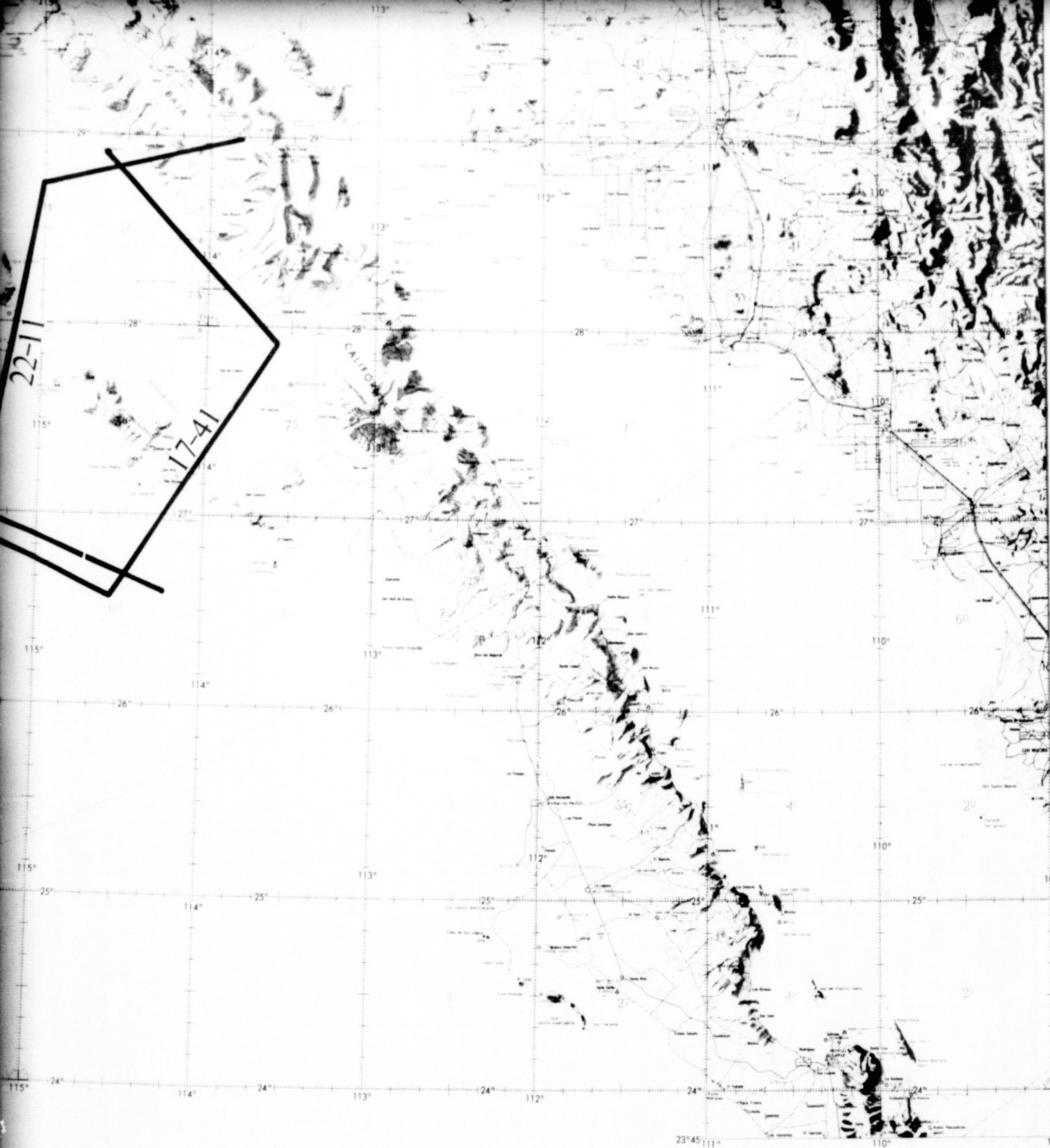


[illegible]



FOLDOUT FRAME 4





FRAME 5

URE 10

INI 7

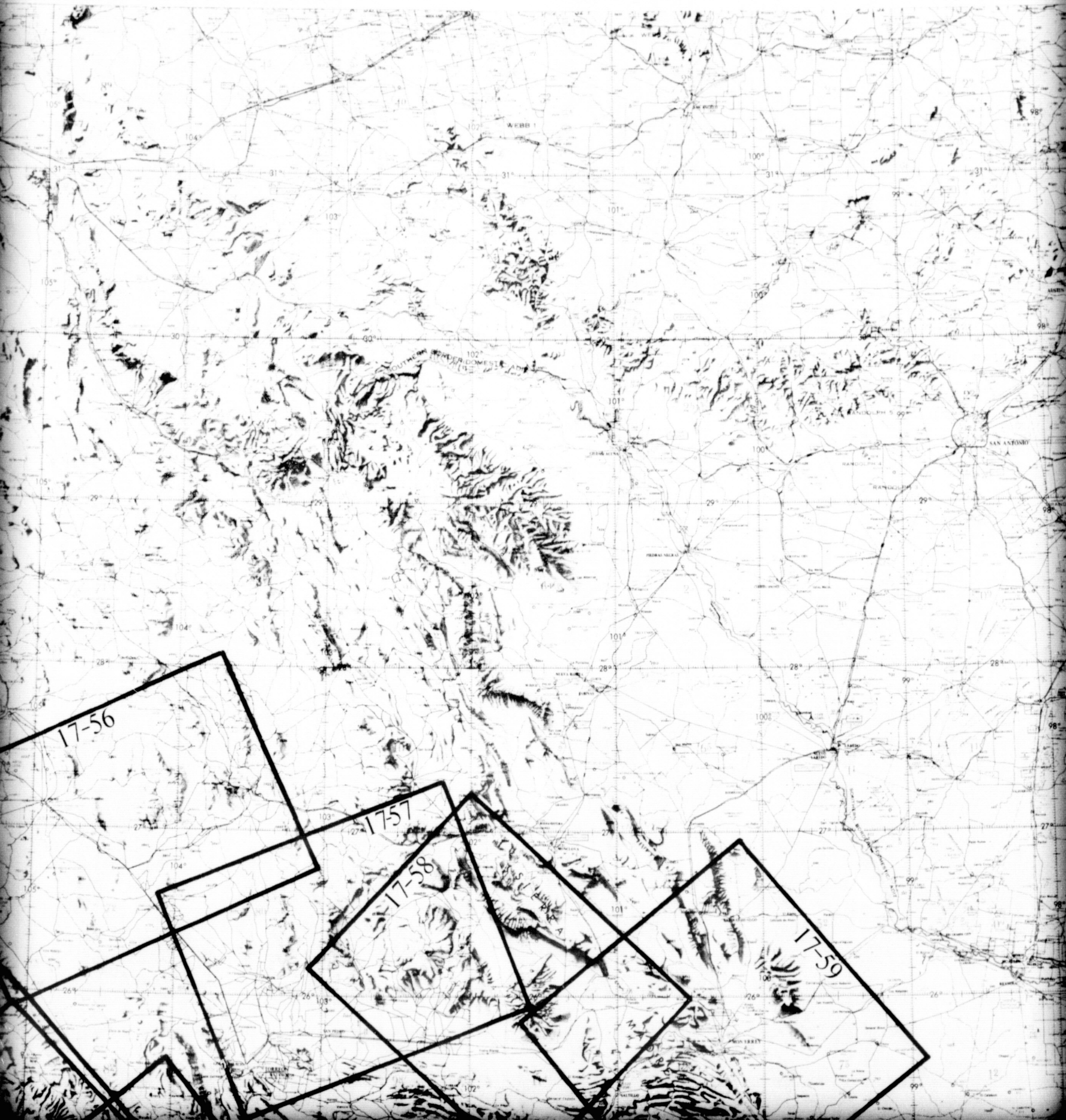
N MEXICO

FOLDOUT FRAME 6

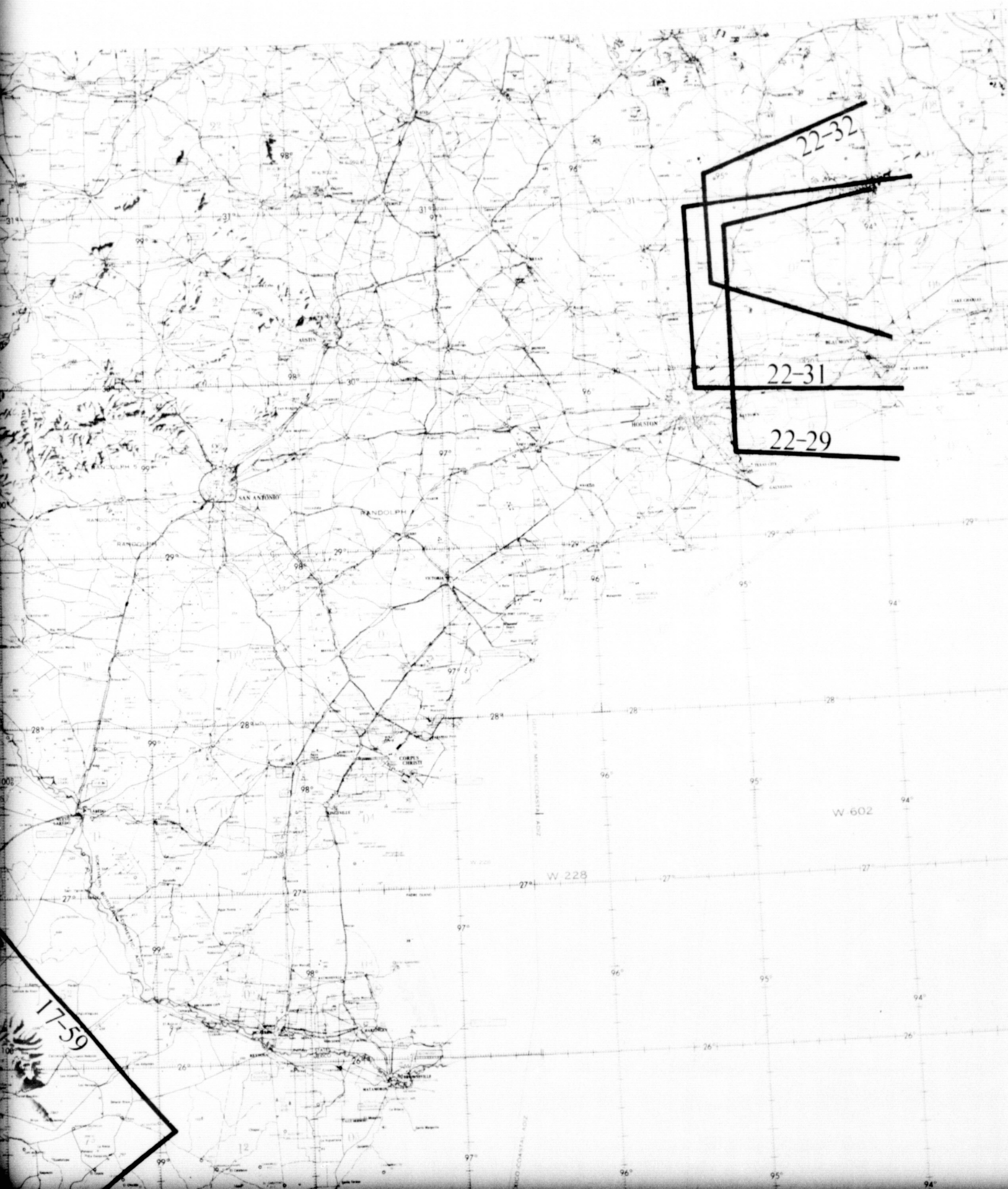
FOLDOUT FRAME /



FOLDOUT FRAME 2

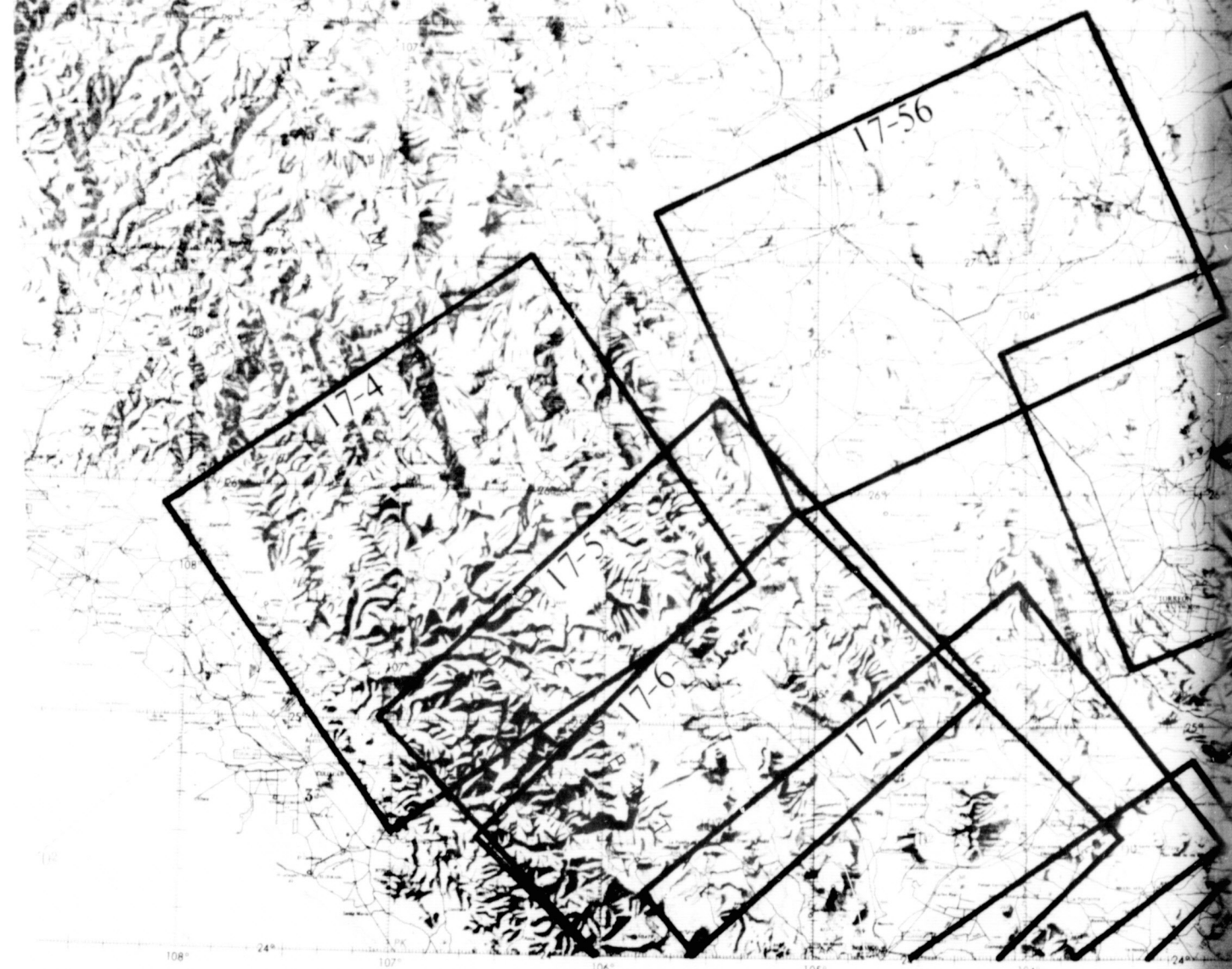


3 FOLDOUT FRAME



FOLDOUT FRAME

4





FOLDOUT FRAME 5

FIGURE 11

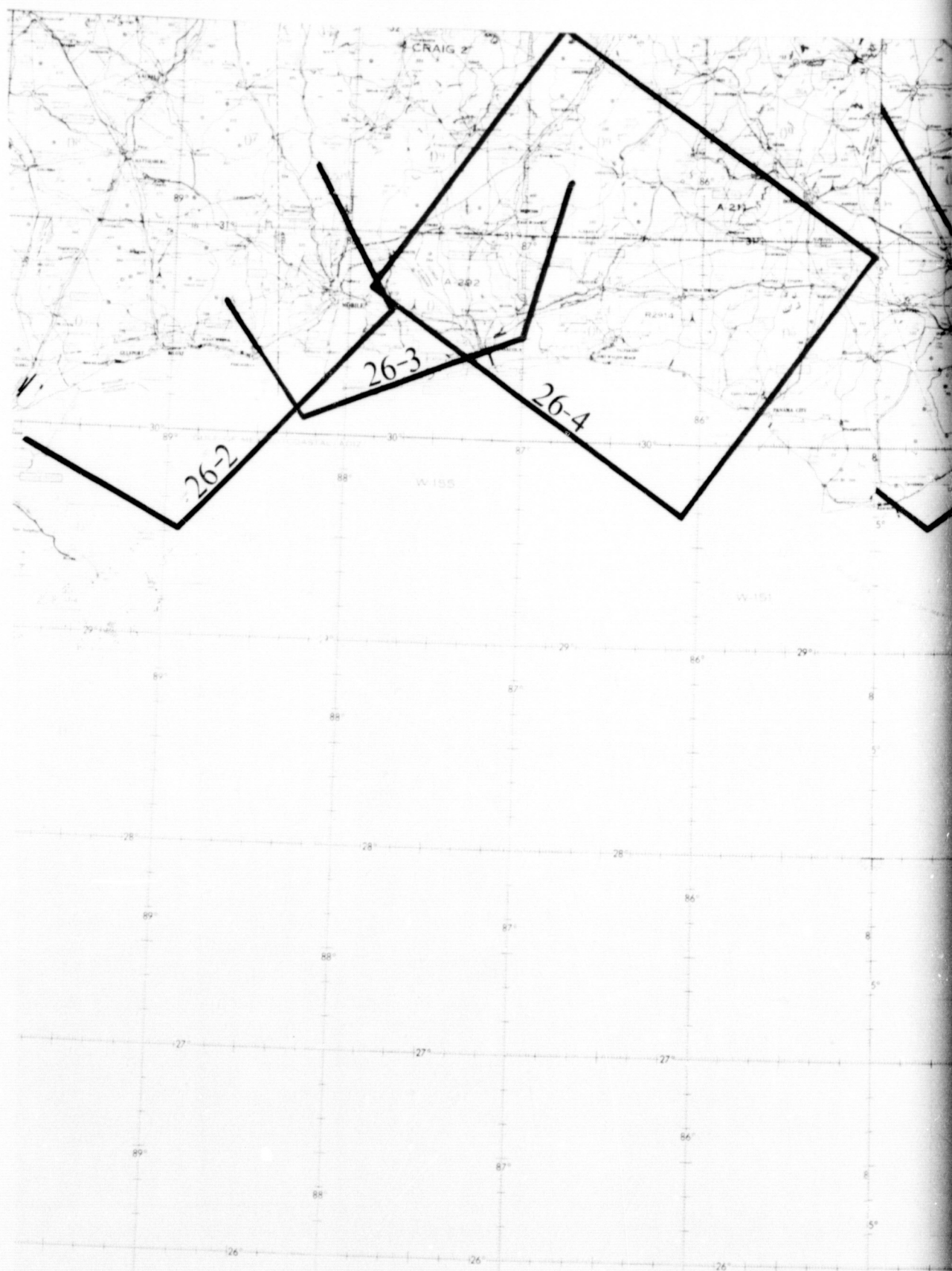
GEMINI 7

NORTHERN MEXICO,
TEXAS, AND LOUISIANA

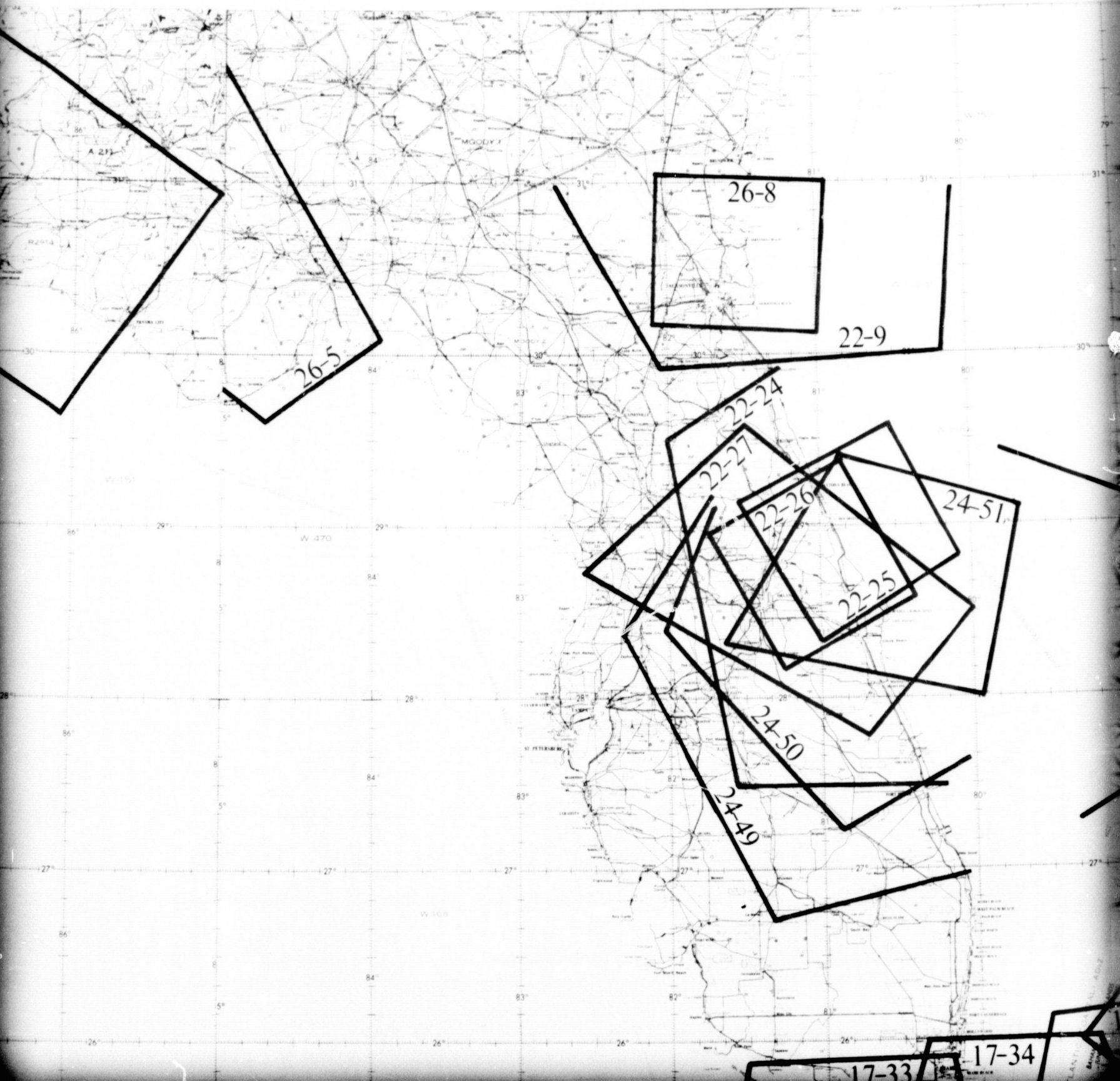


6 FOLDOUT FRAME

FOLDOUT FRAME /

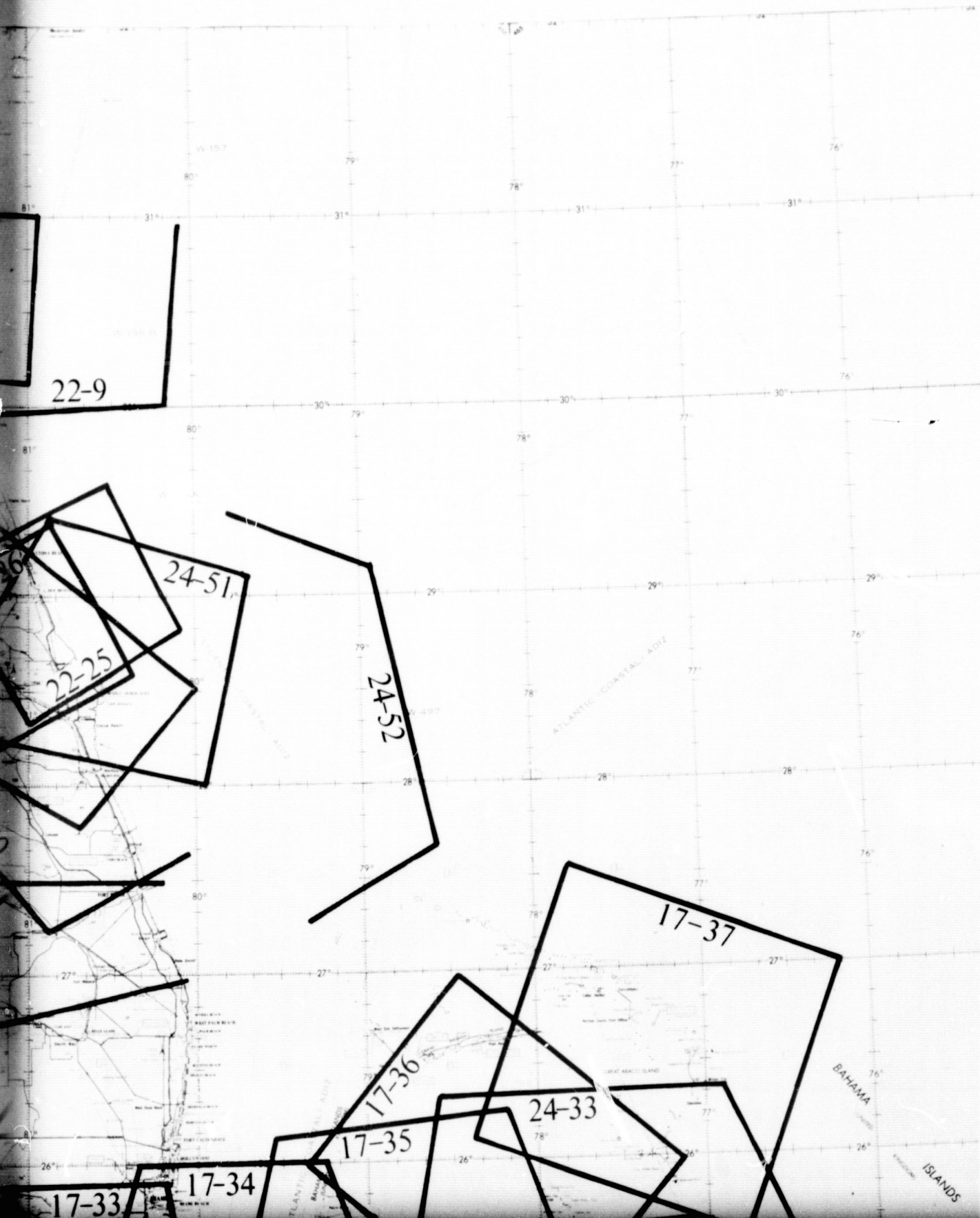


FOLDOUT FRAME 2

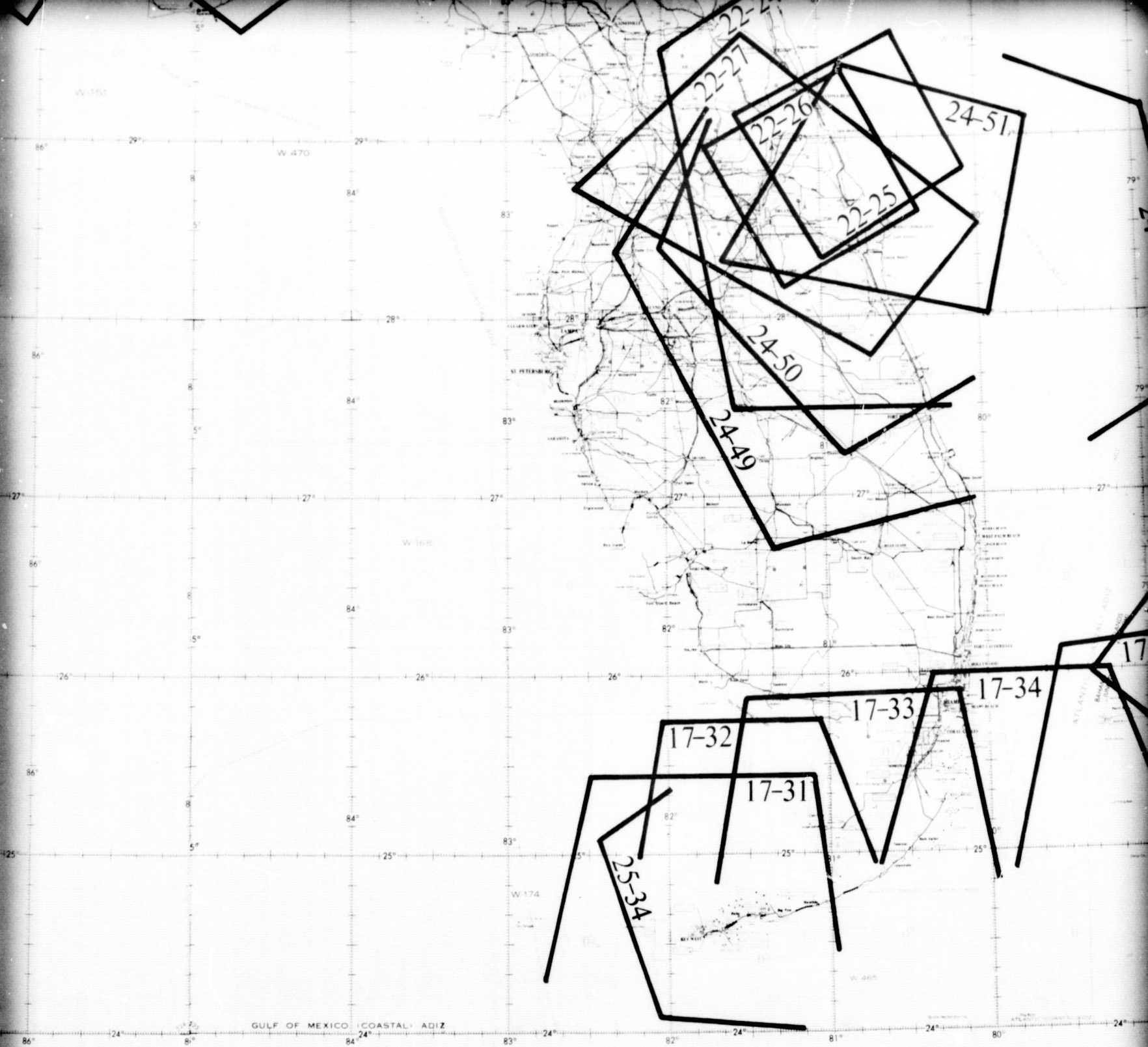


FOLDOUT FRAME

3







FOLDOUT FRAME

5
FIGURE 12

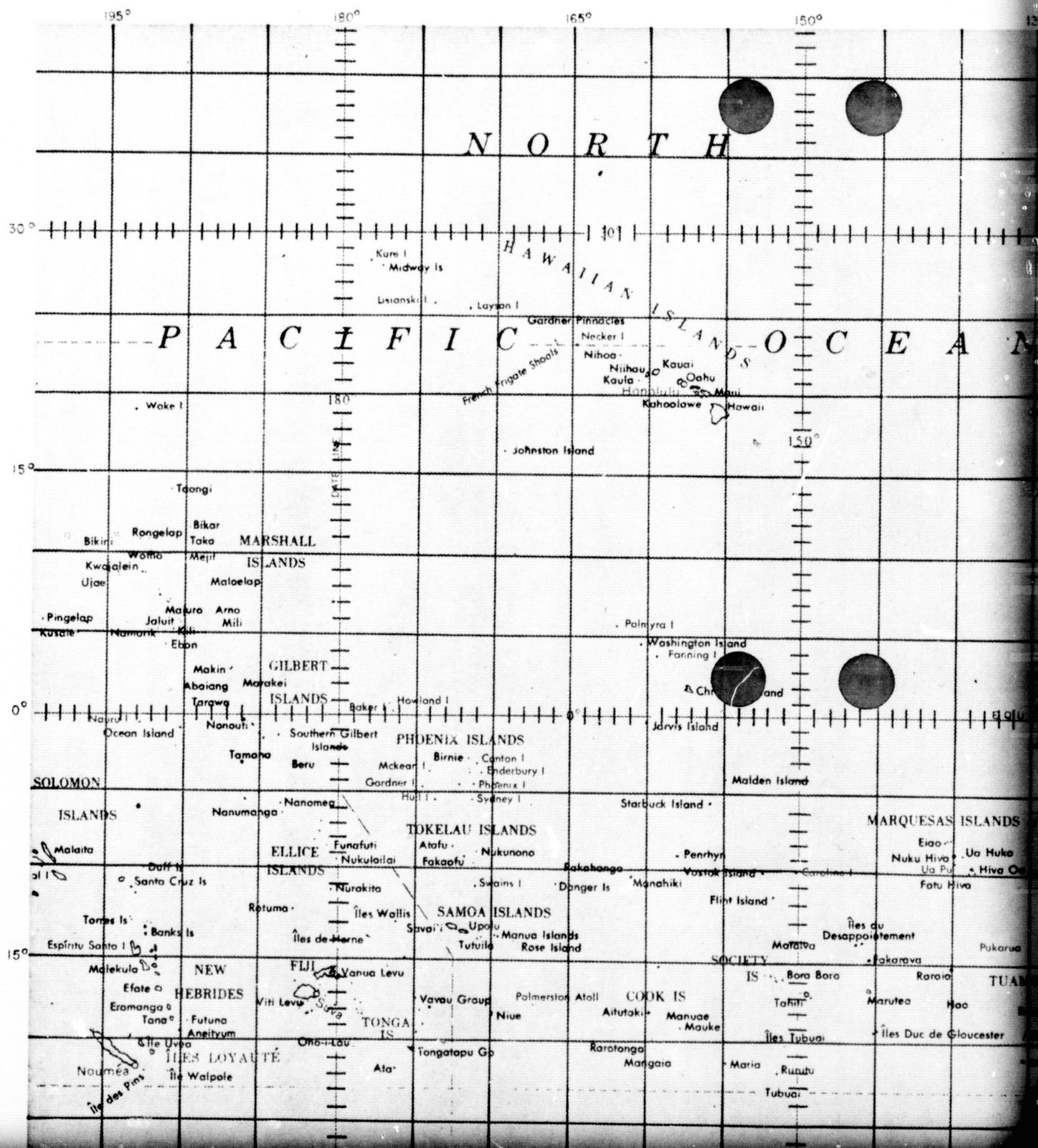
GEMINI 7

SOUTHEAST UNITED STATES
AND NEARBY ISLANDS

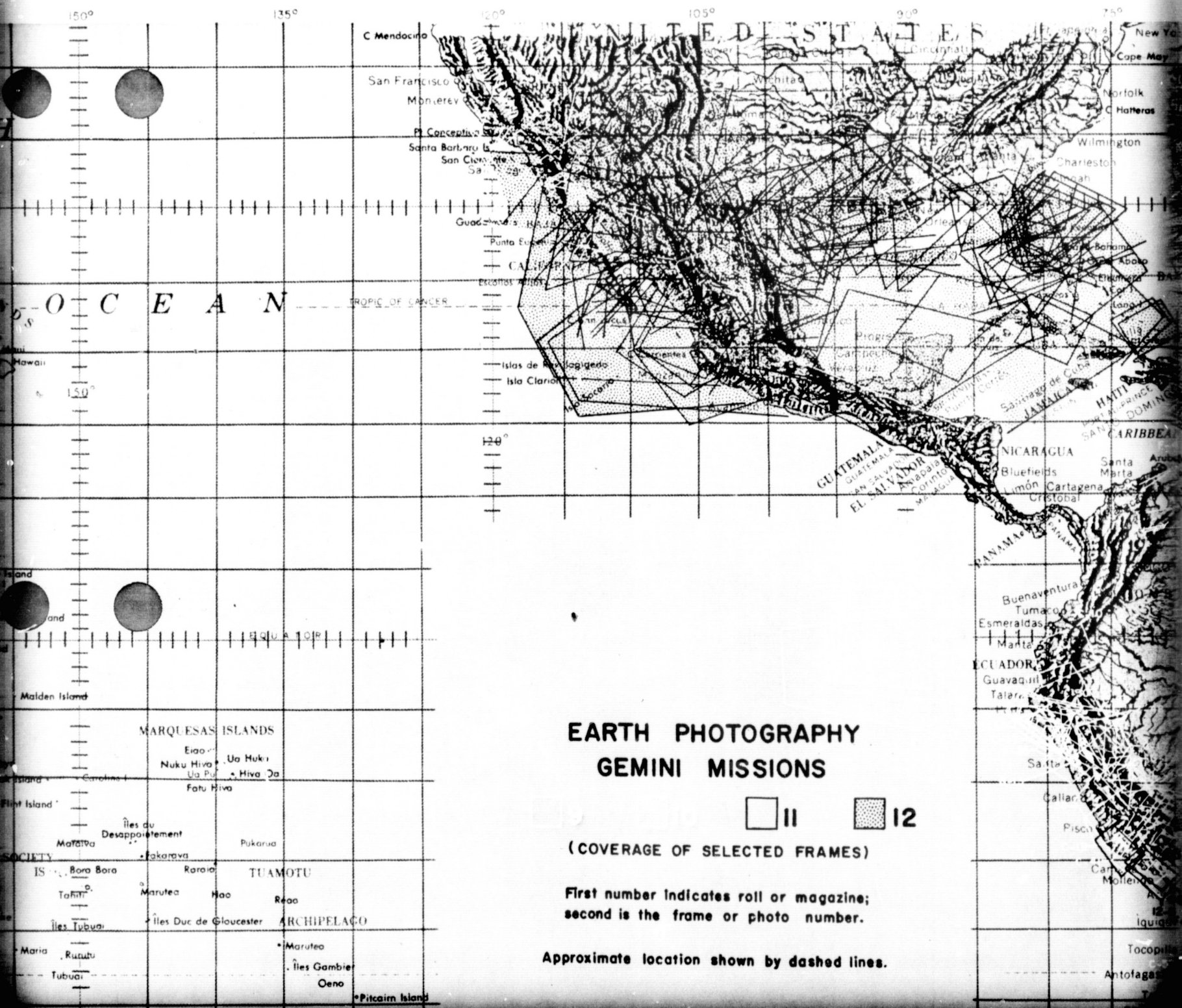


BOLDOUT FRAME

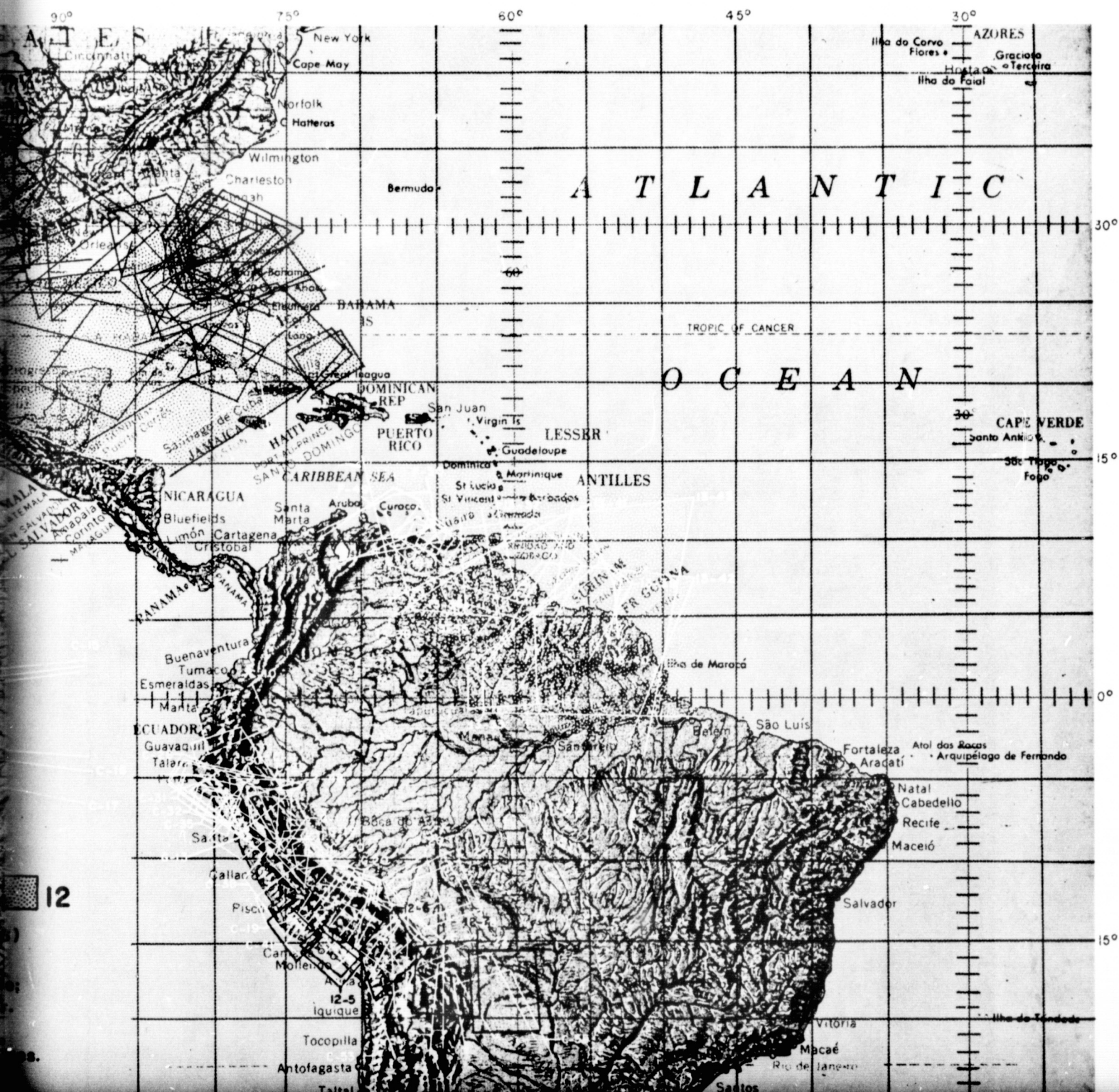
FOULOUT FRAME



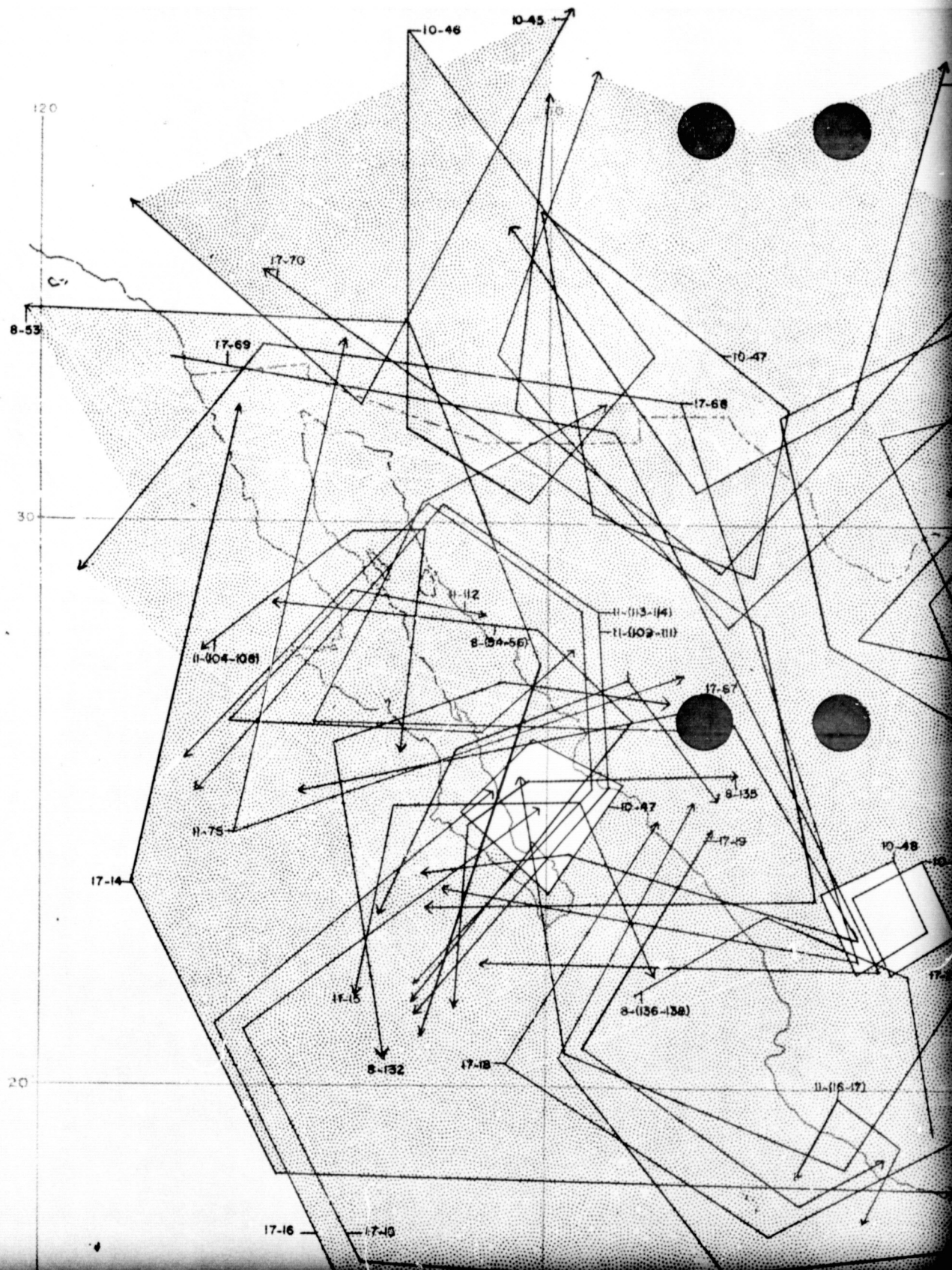
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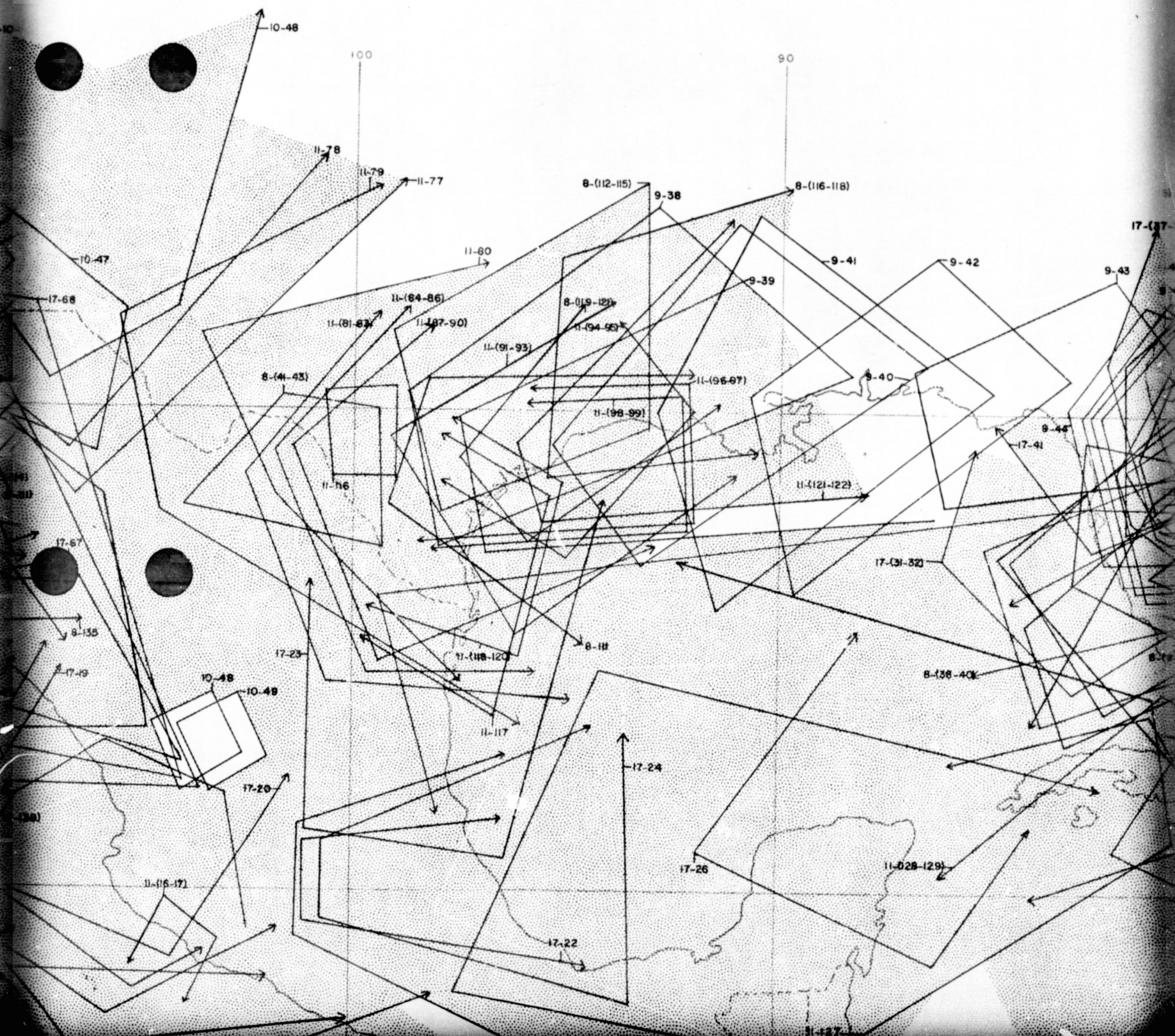
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FOLDOUT FRAME



2



FOLDOUT FRAME

3

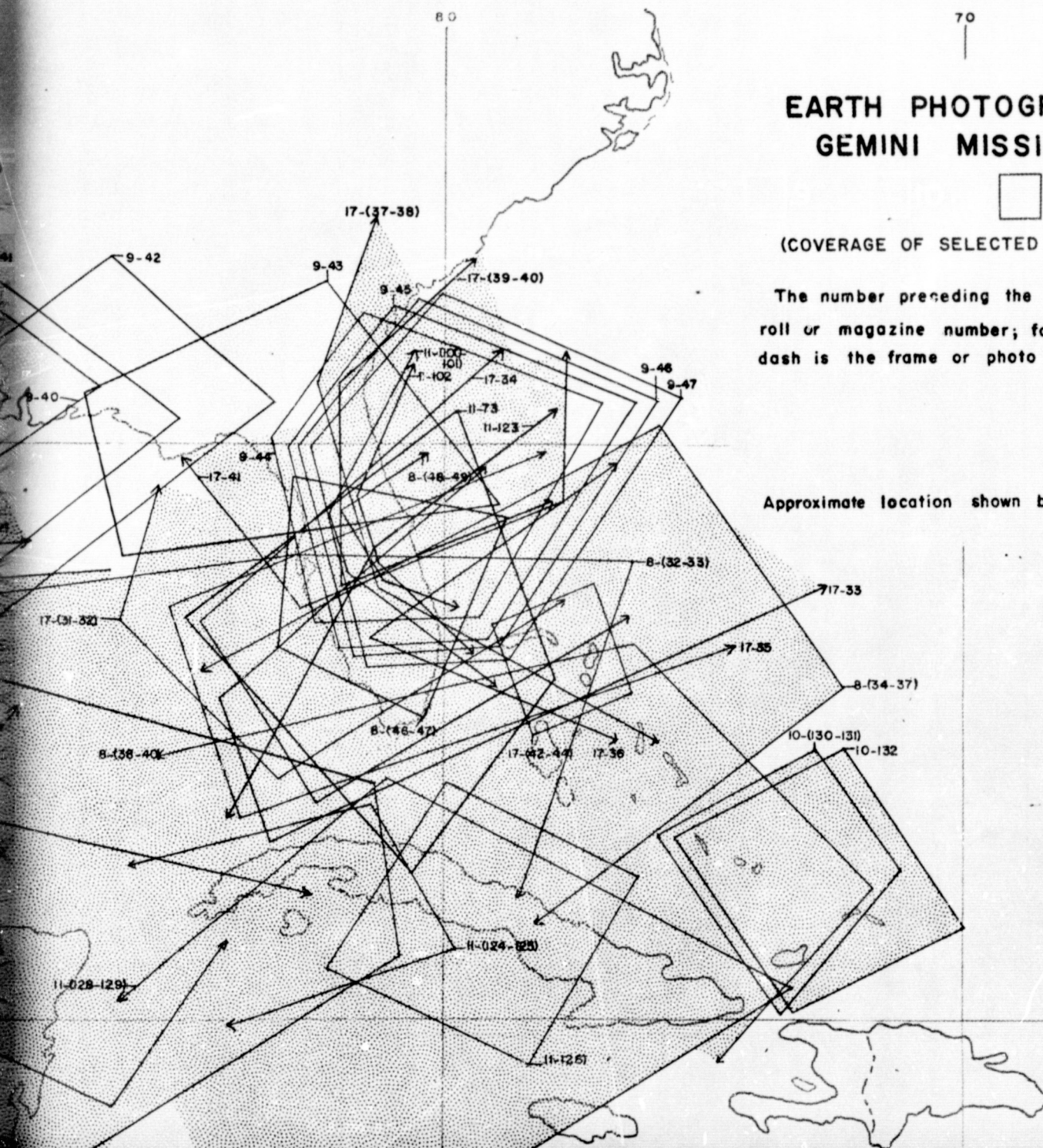
EARTH PHOTOGRAPHY GEMINI MISSIONS

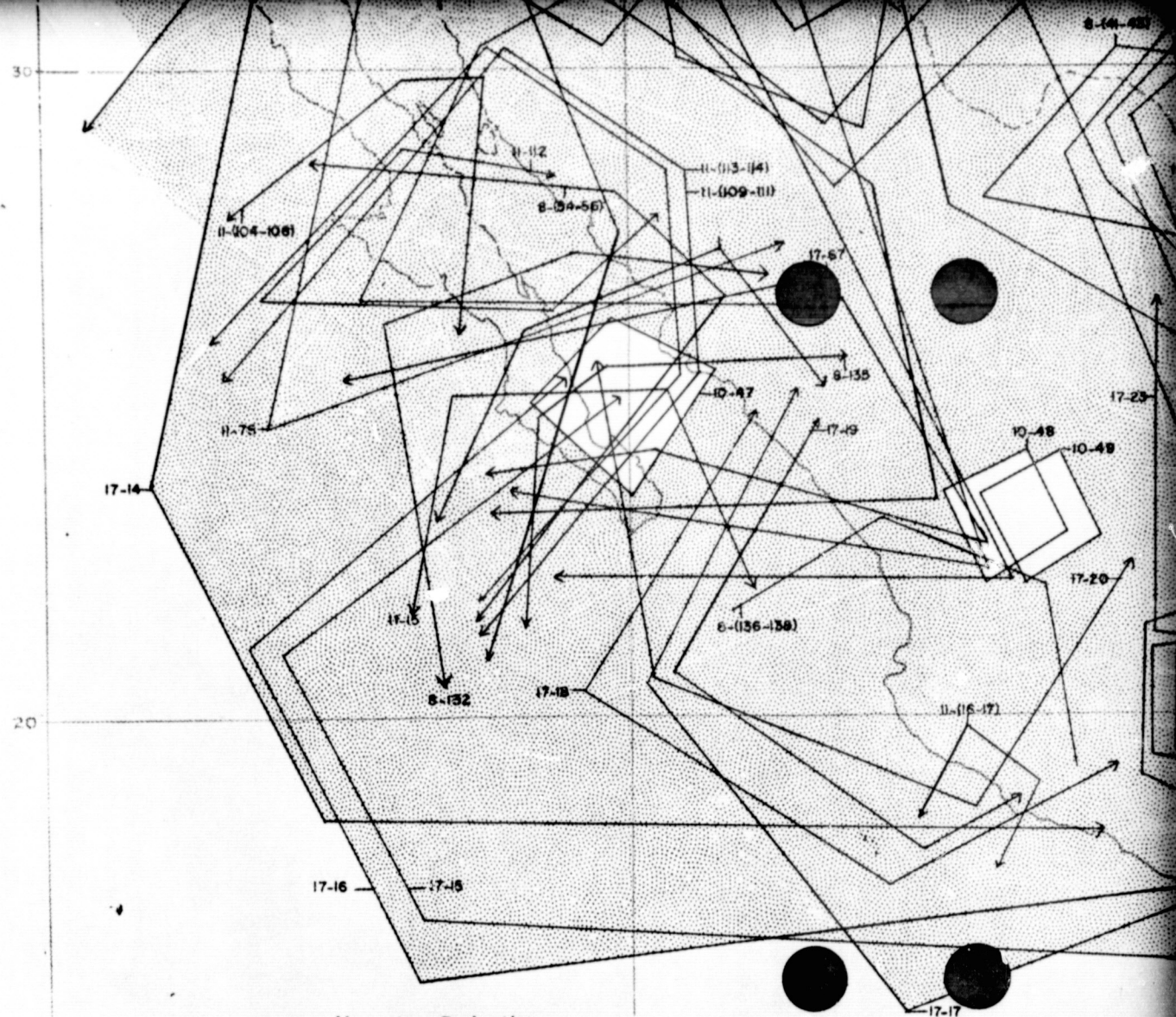


(COVERAGE OF SELECTED FRAMES)

The number preceding the dash is the roll or magazine number; following the dash is the frame or photo number.

Approximate location shown by dashed lines.

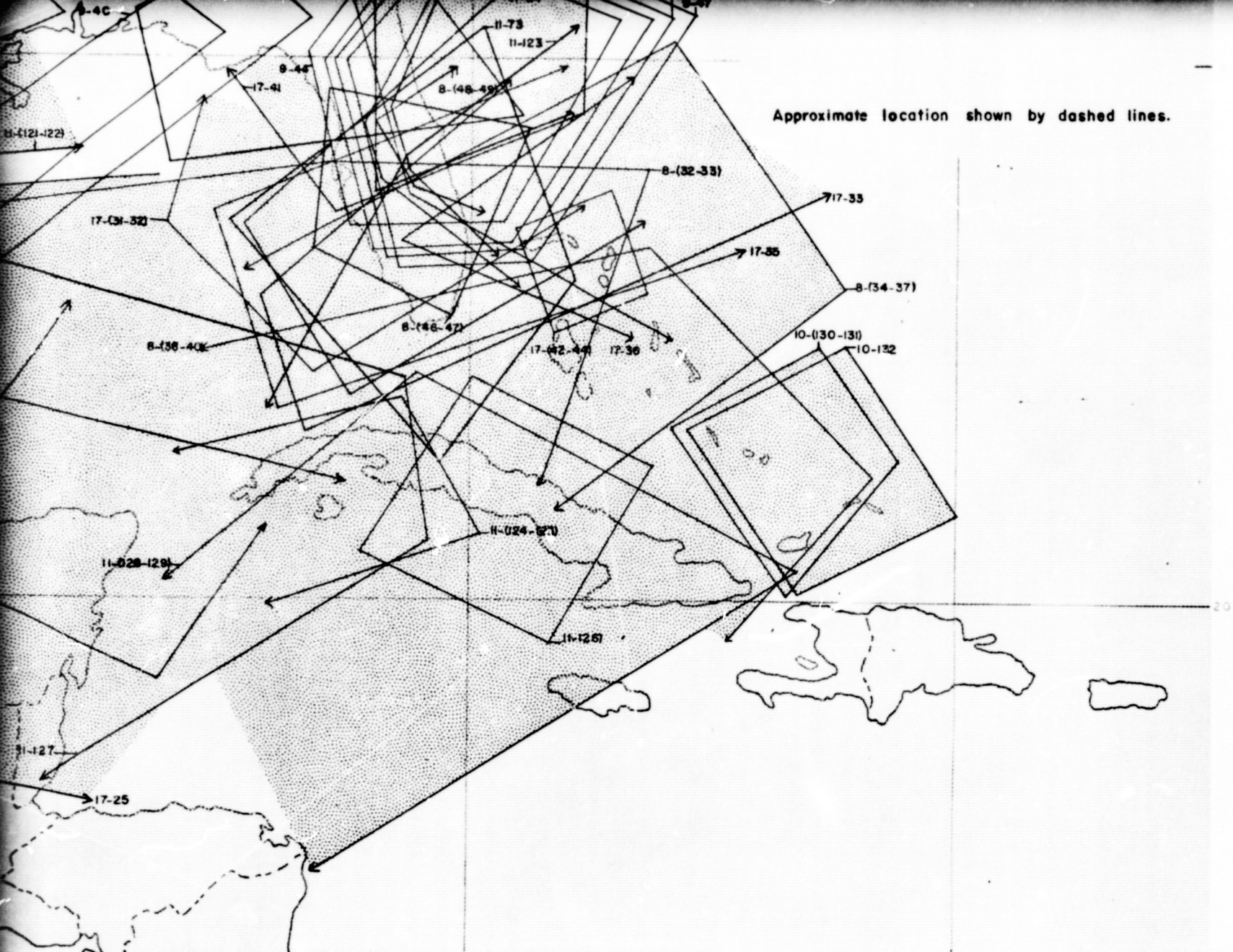




NJWT CHB

FOLDOUT FRAME

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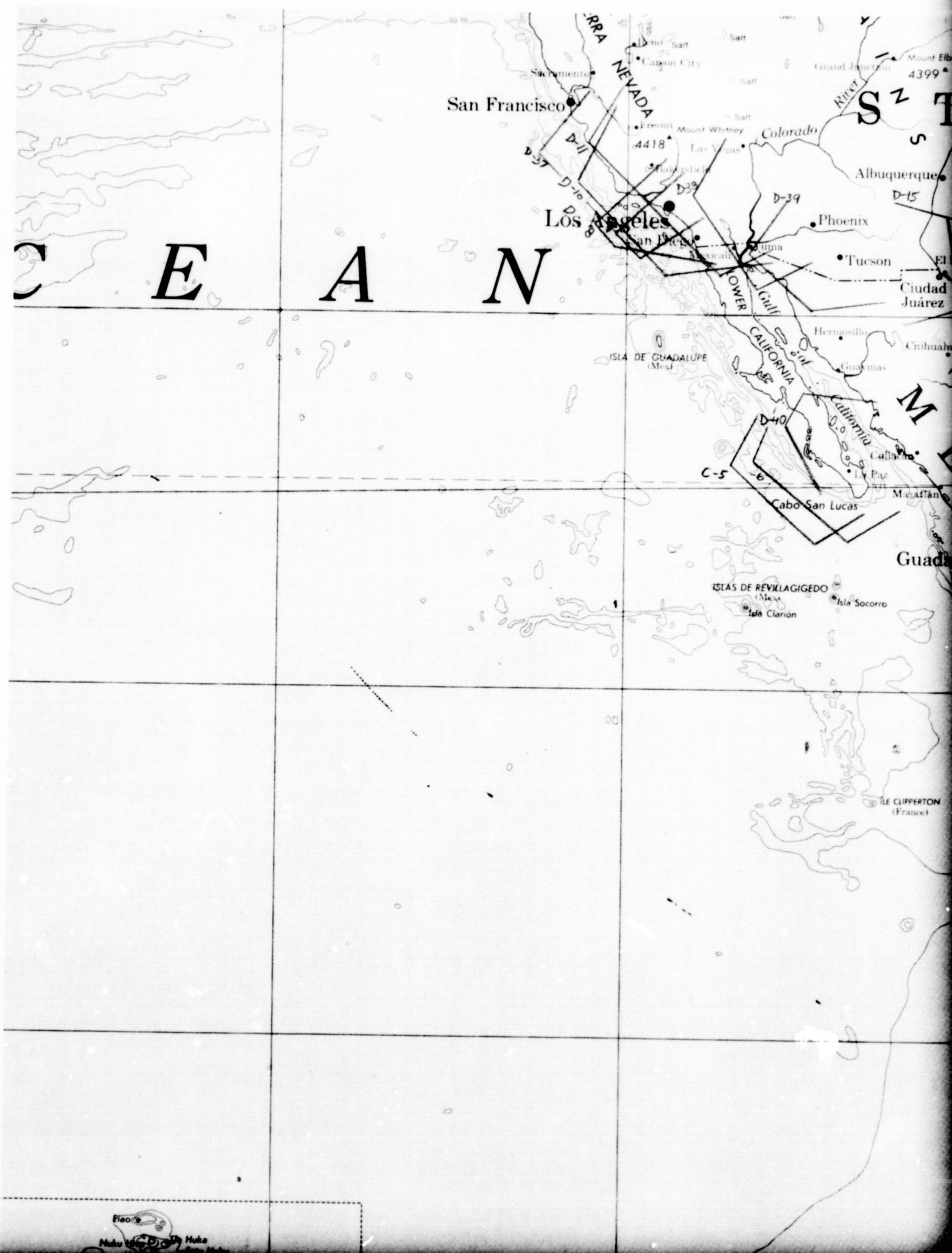


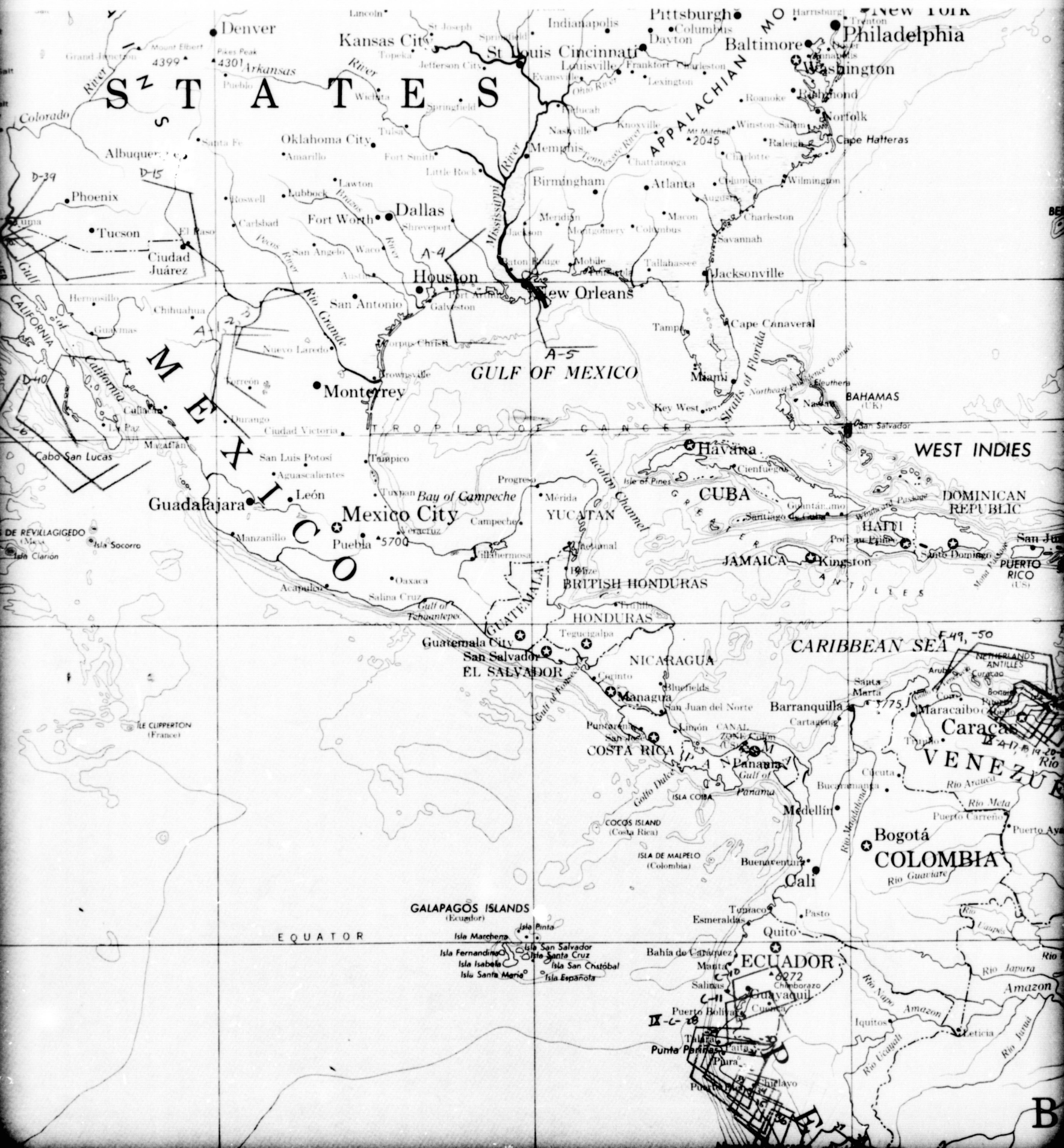
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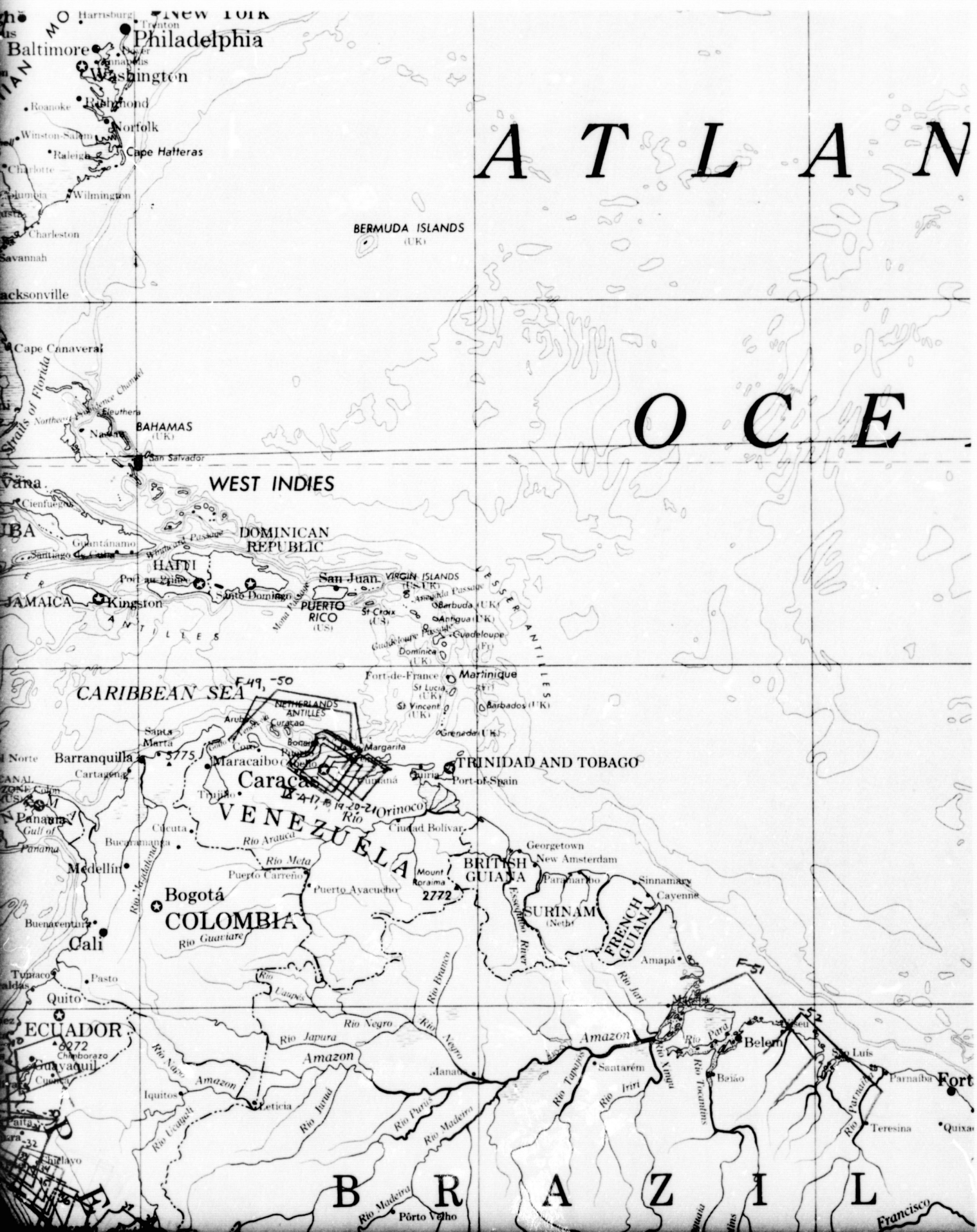
C-2

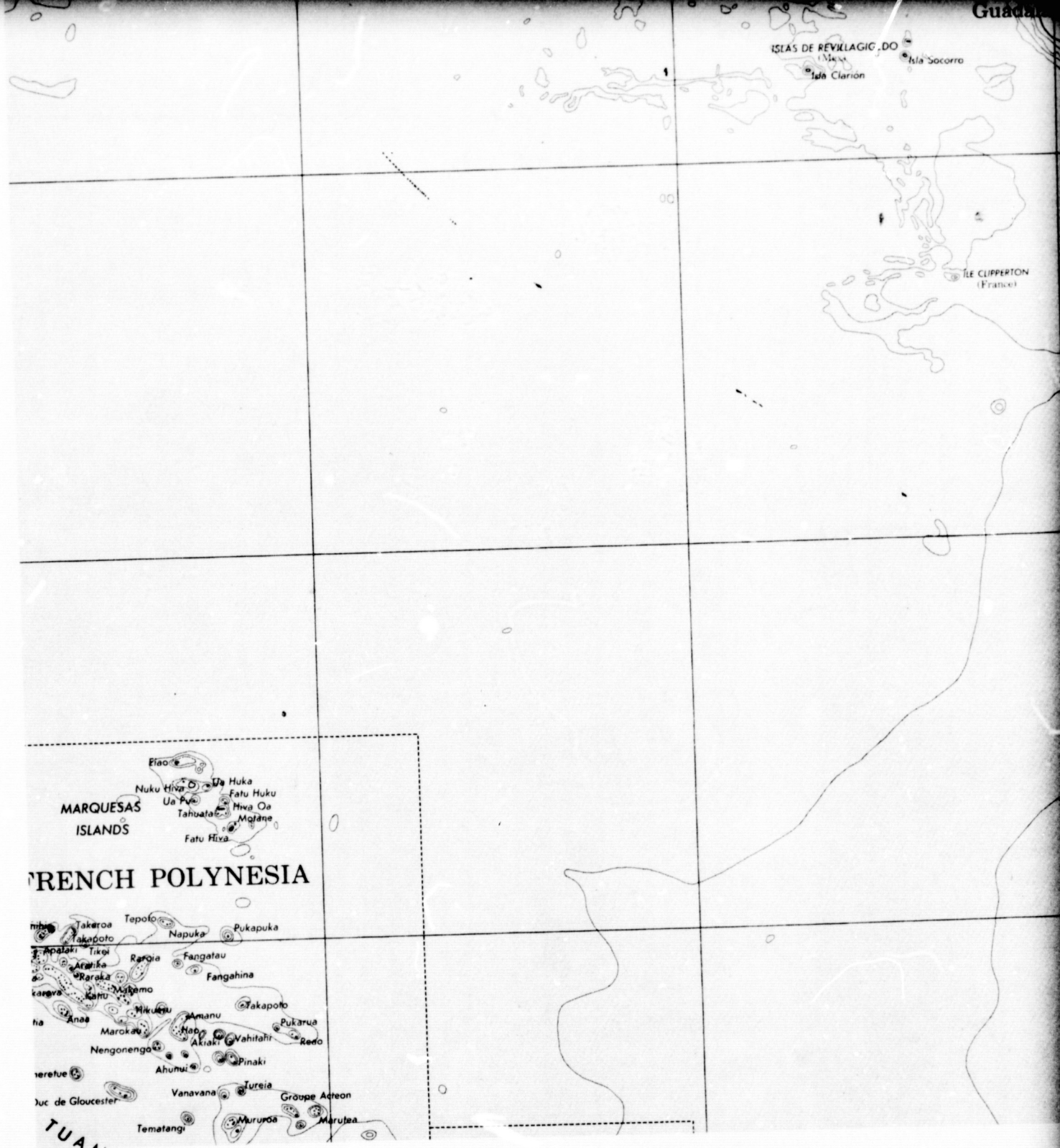
FOLDOUT FRAME /





FOLDOUT FRAME
3





FOLDOUT FRAME

4



FIGURE 15

GEMINI 9

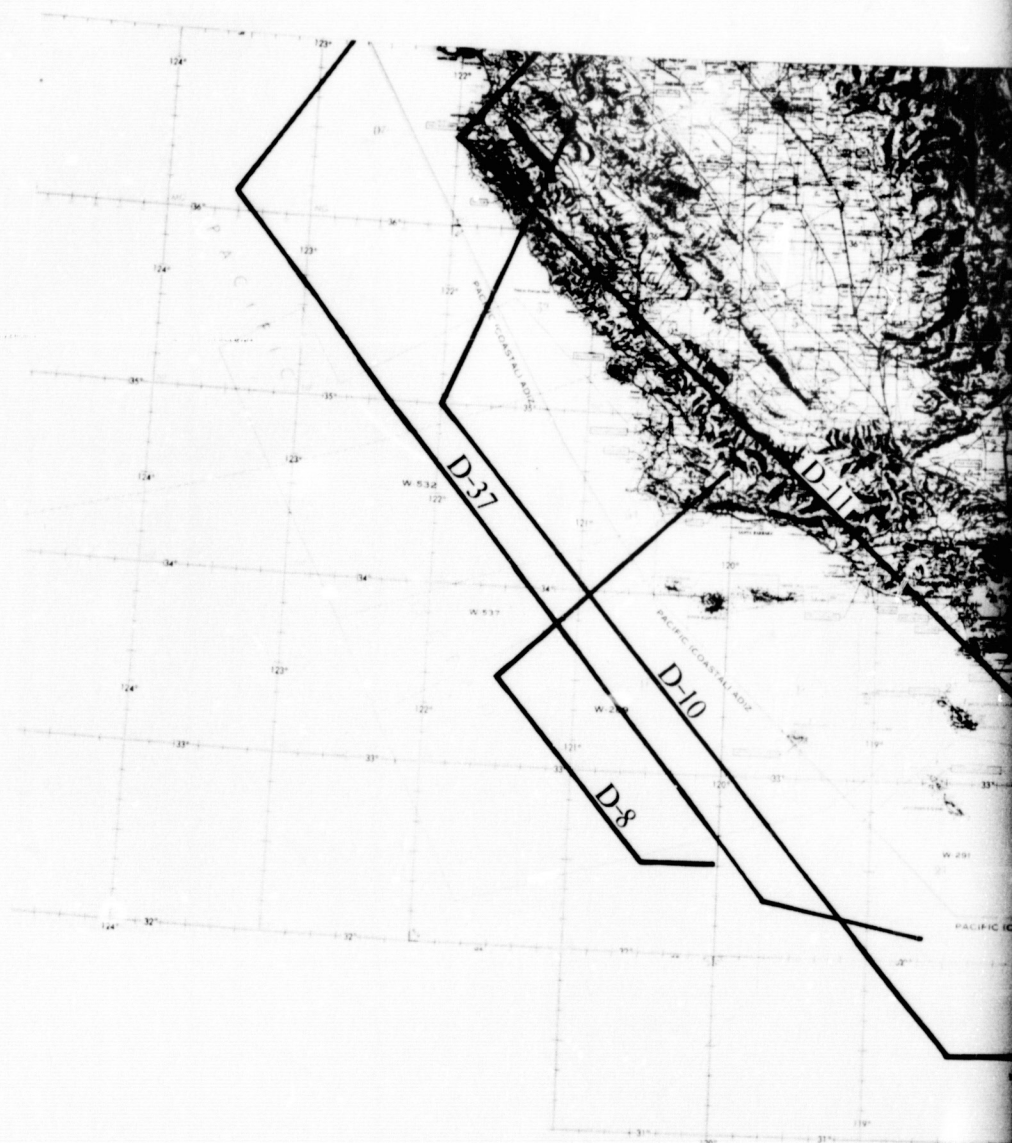
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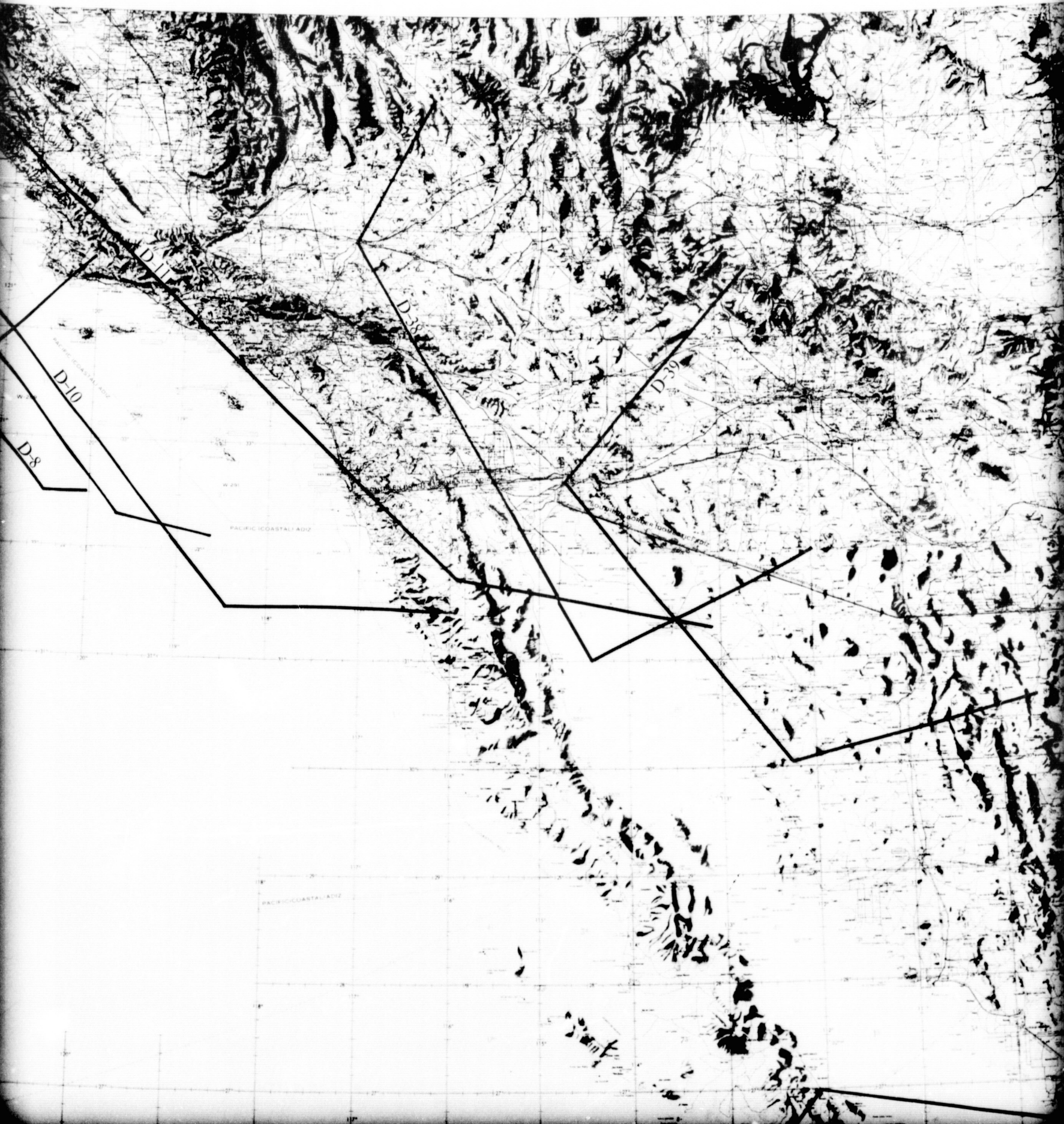


FOLDOUT FRAME

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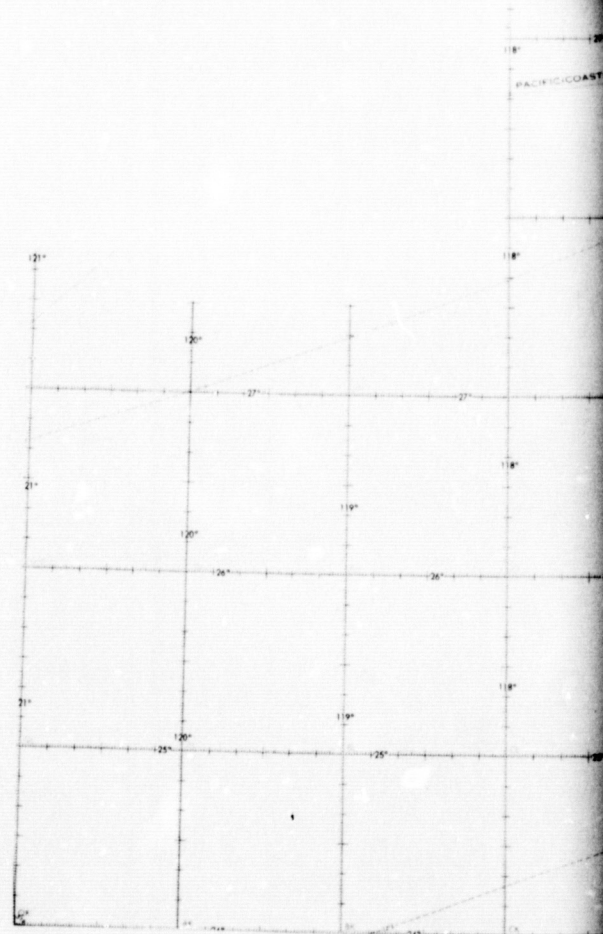
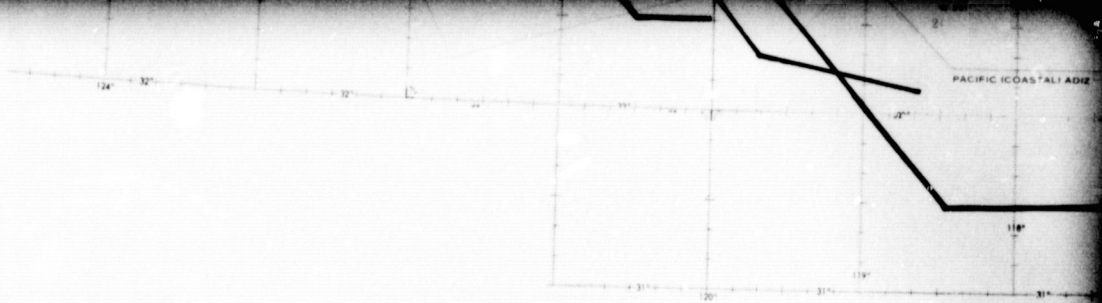


FOLDOUT FRAME 2



FOLDOUT FRAME 3





FOLDOUT FRAME 4

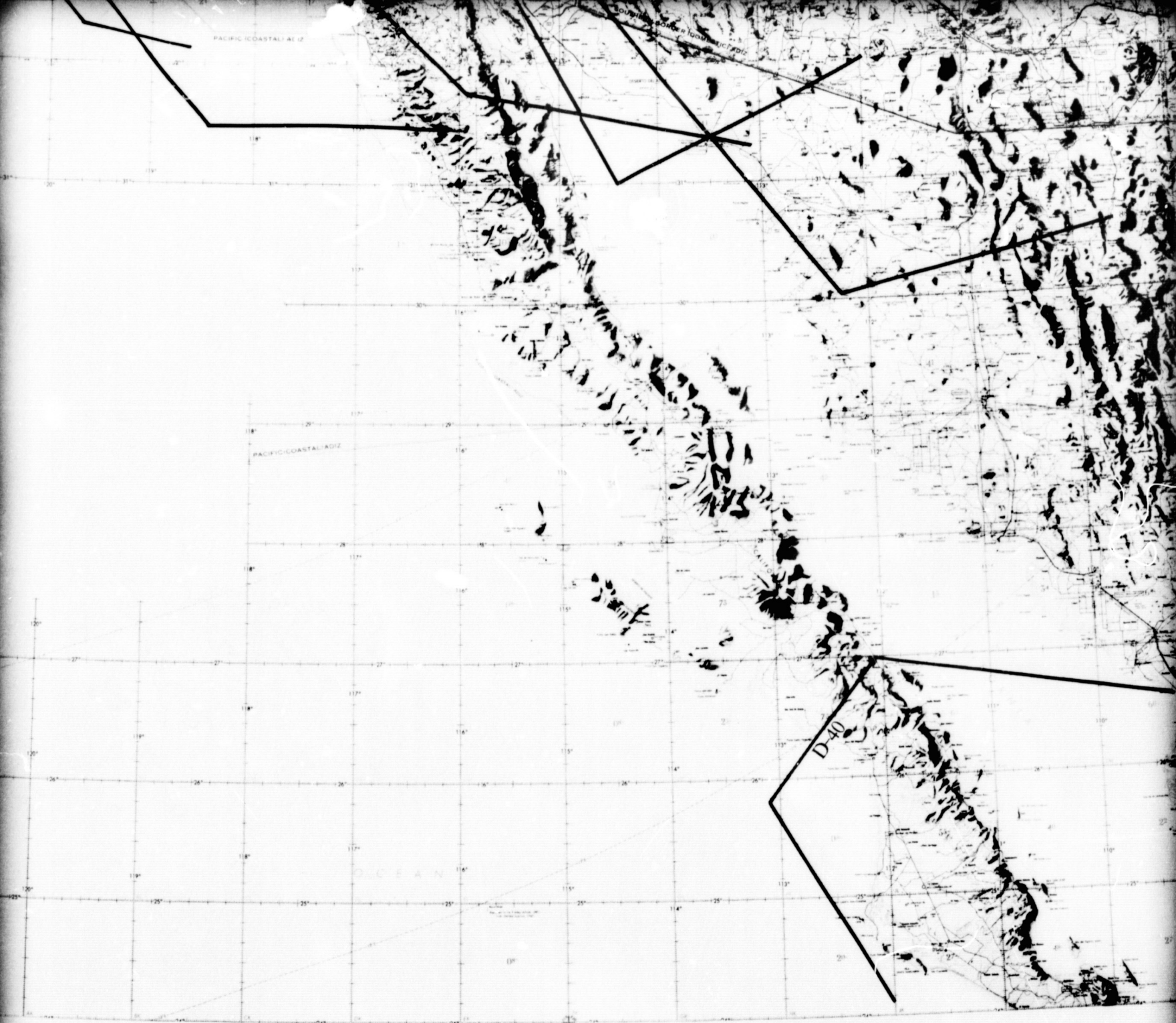
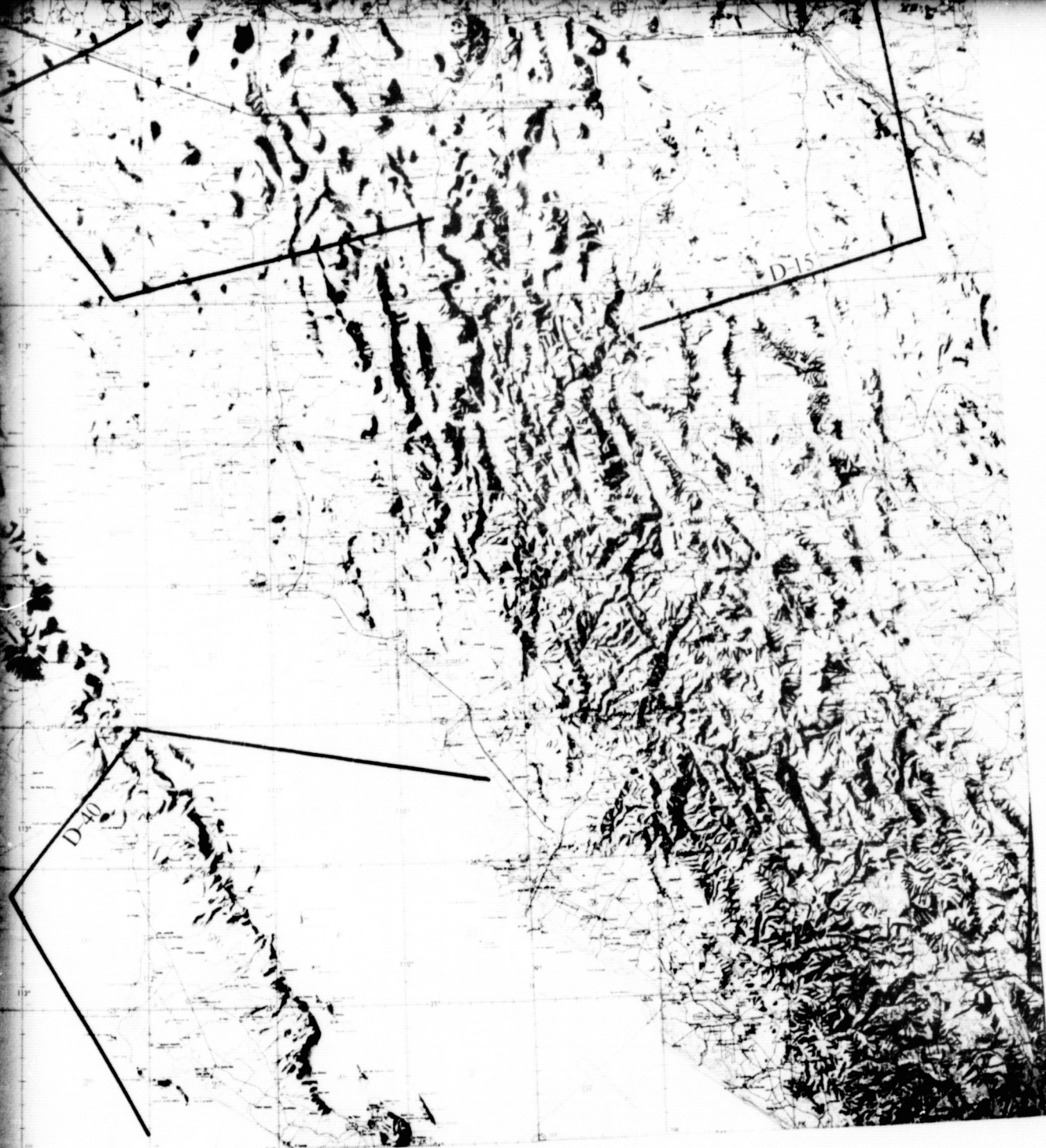


FIGURE 16

GEMINI 9

SOUTHWEST UNITED STATES AND WESTERN MEXICO

FOLDOUT FRAME 5



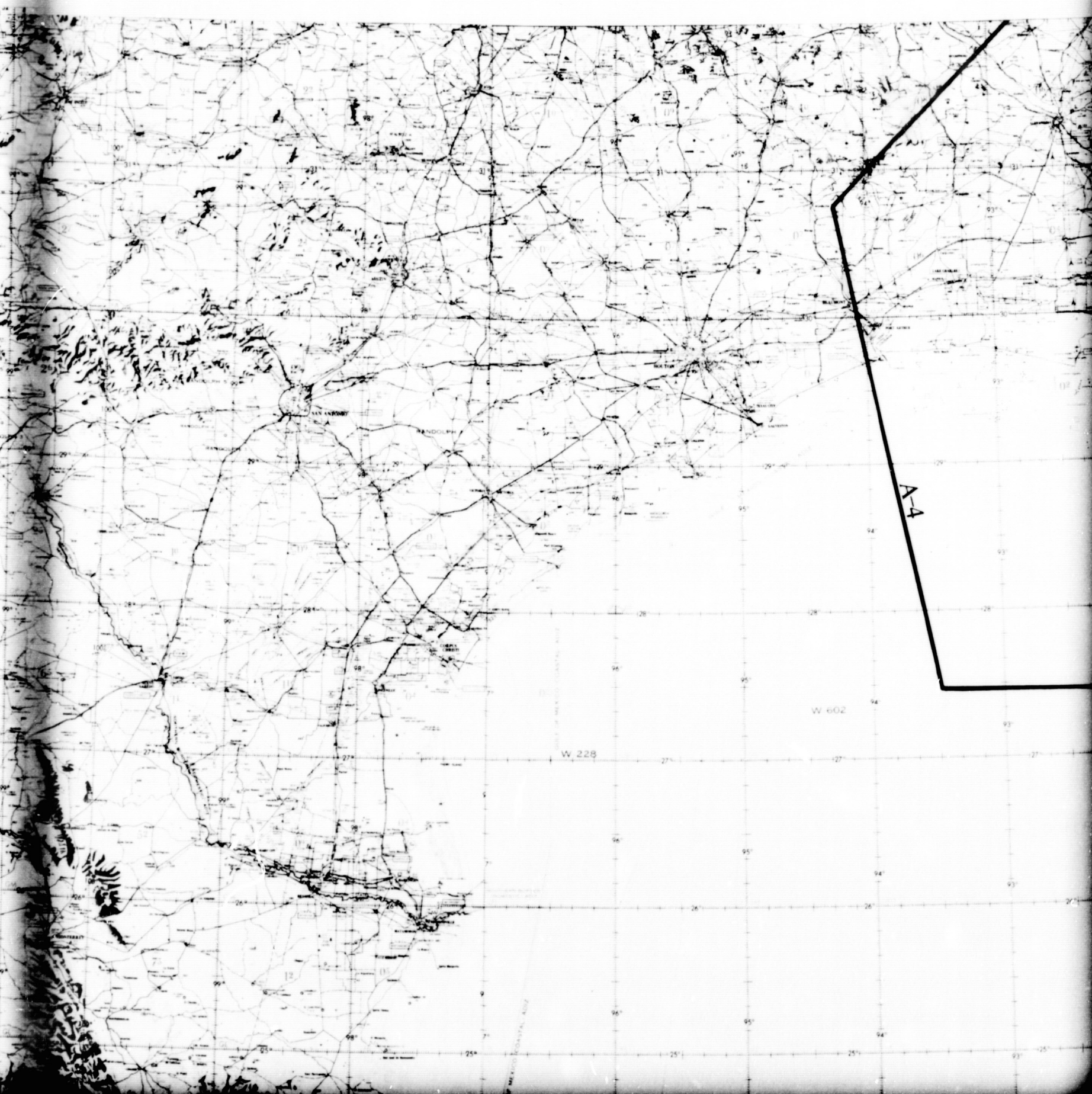
FOLDOUT FRAME 6

MEXICO

FOLDOUT FRAME /

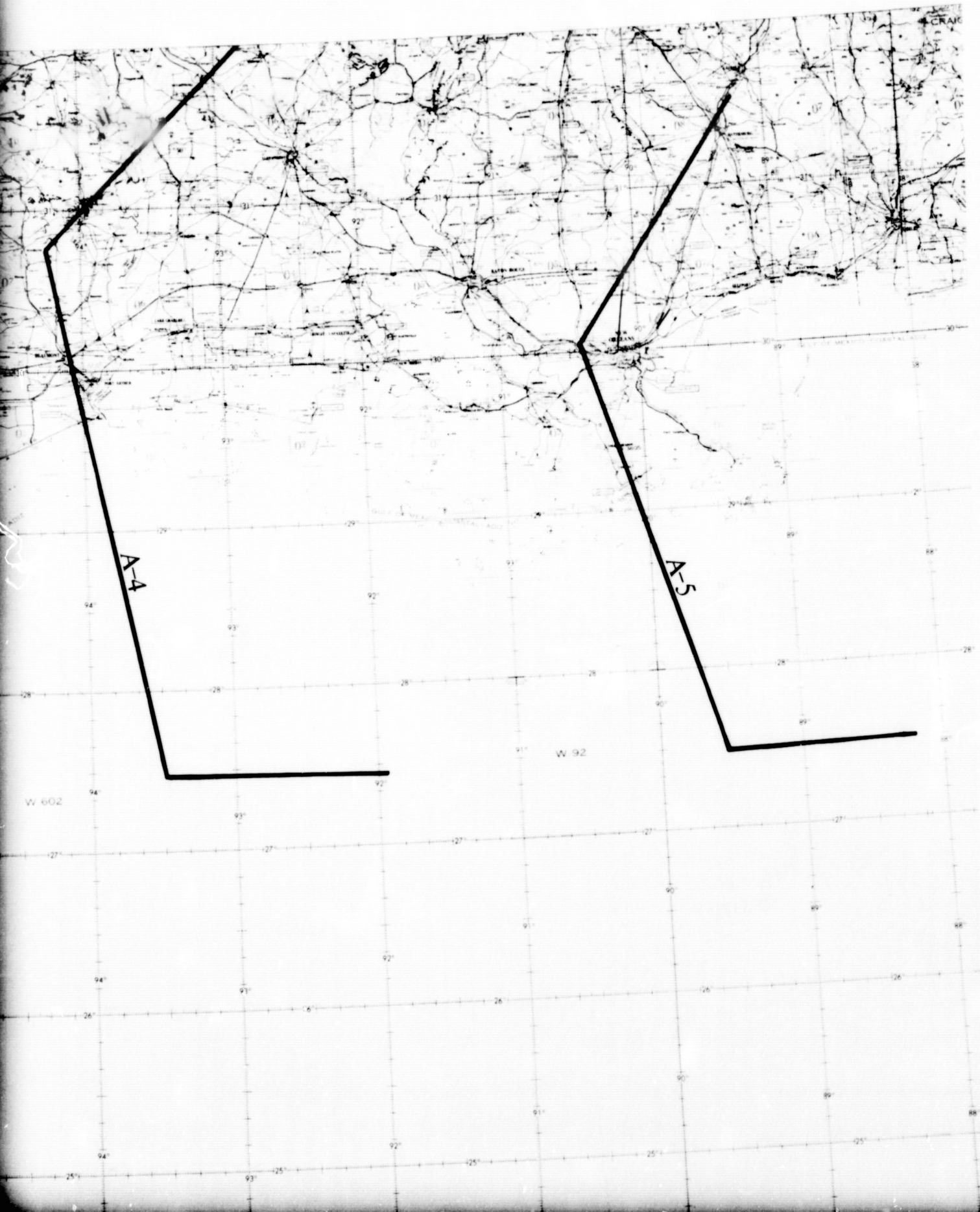


FOLDOUT FRAME 2



FOLDOUT FRAME

3



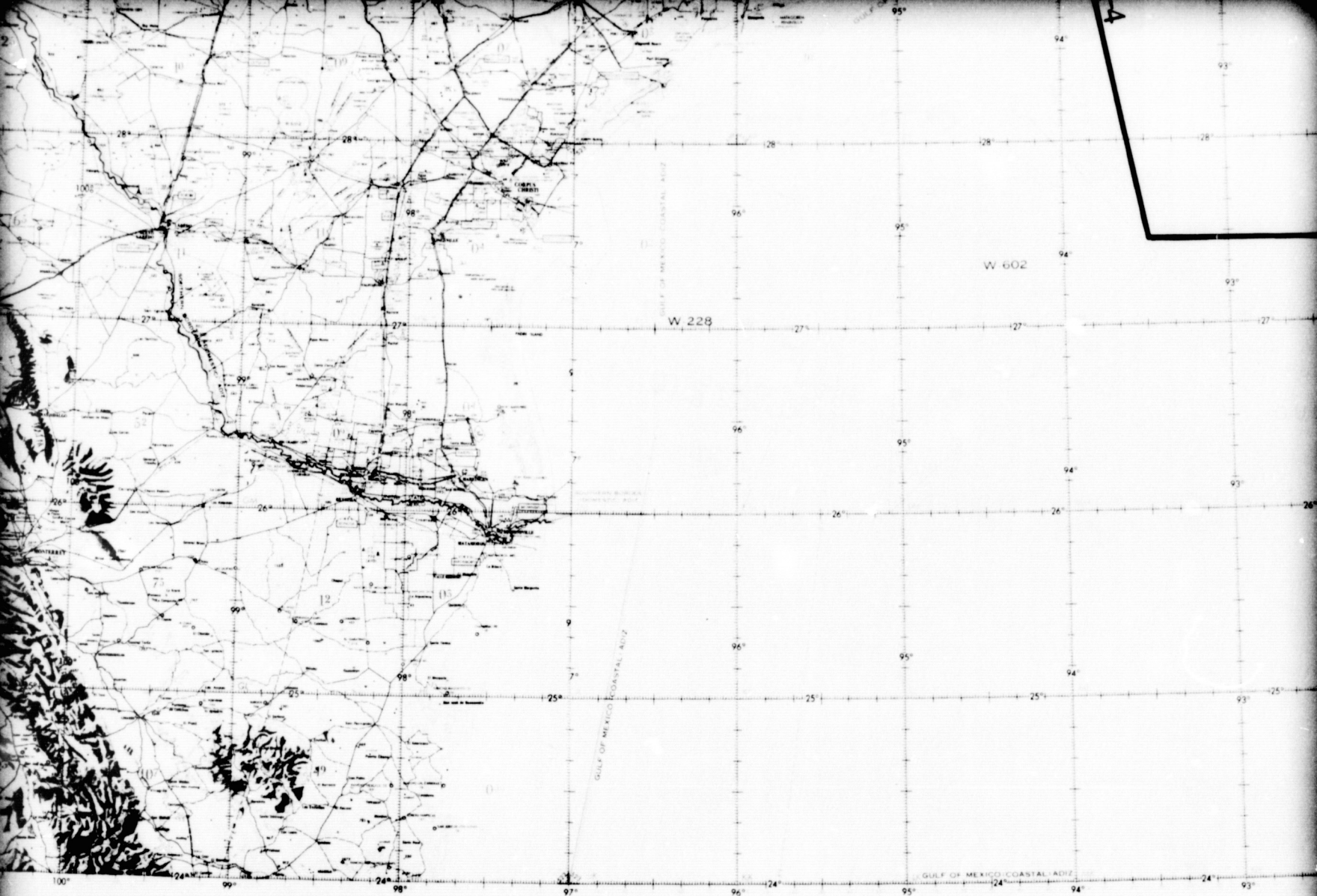


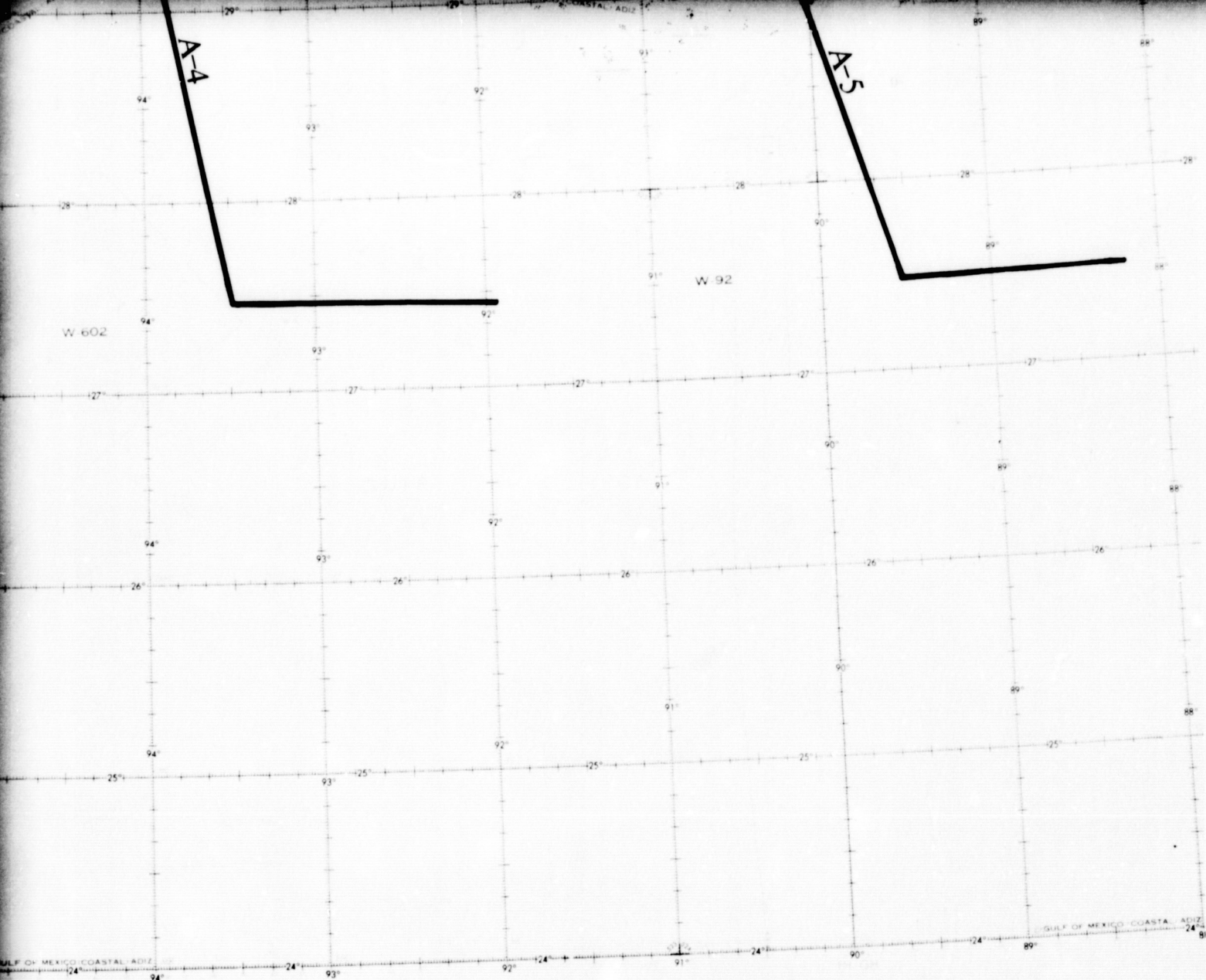
FIGURE 17

GEMINI 9

EASTERN MEXICO AND GULF COAST
OF UNITED STATES

FOLDOUT FRAME

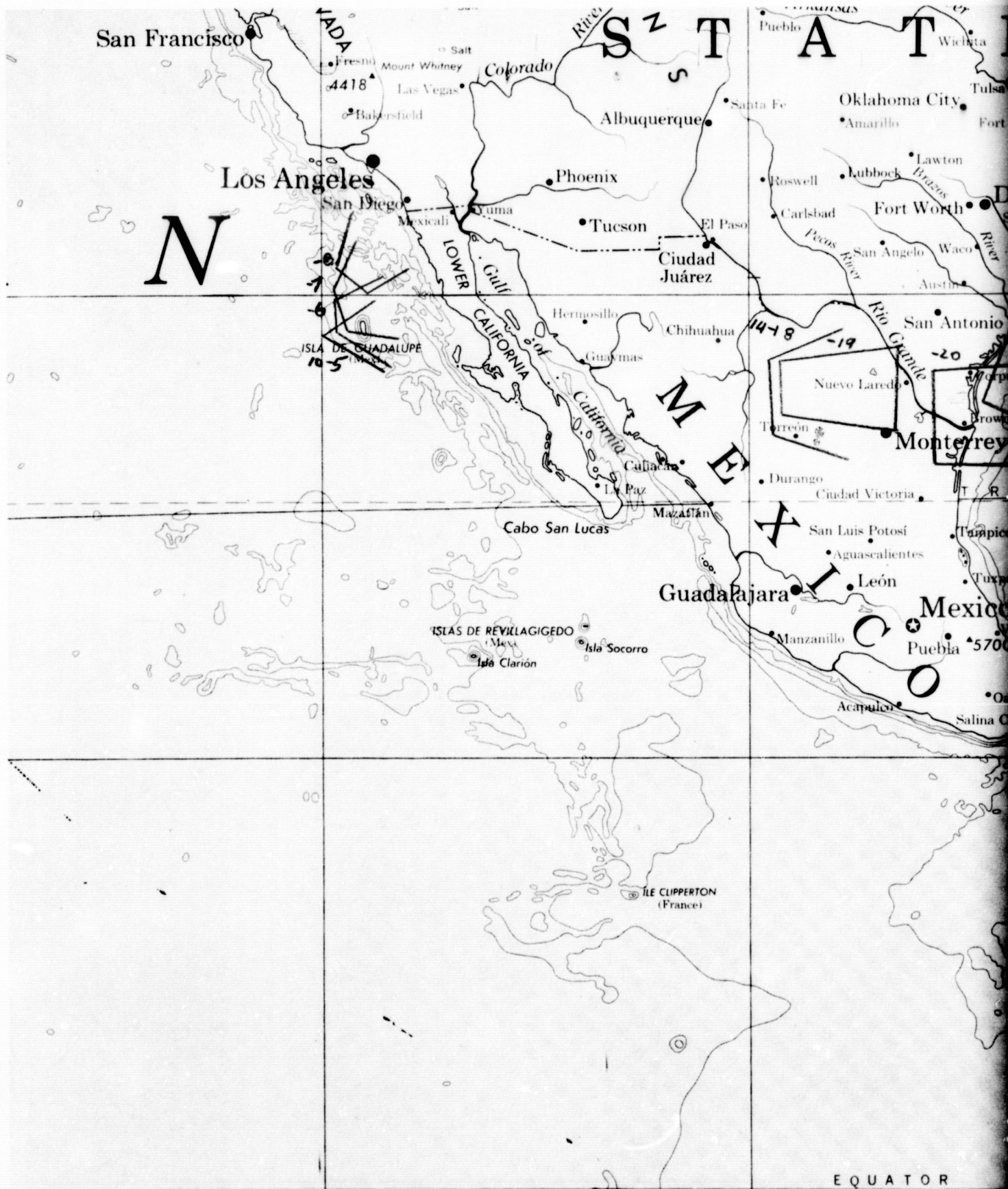
5



FOLDOUT FRAME

6

1





FOLDOUT FRAME 3





FOLDOUT FRAME

4



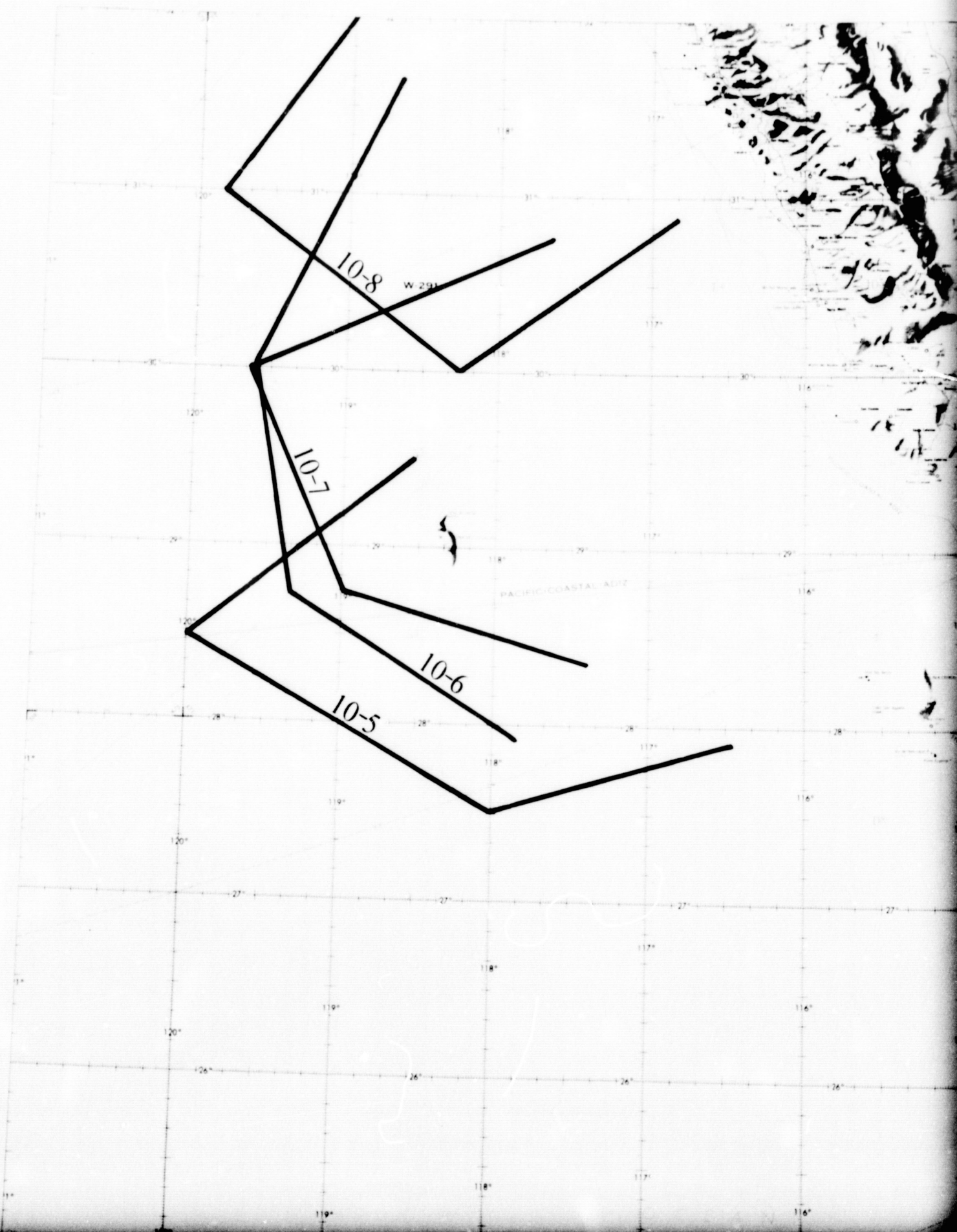
FIGURE 18

GEMINI 10

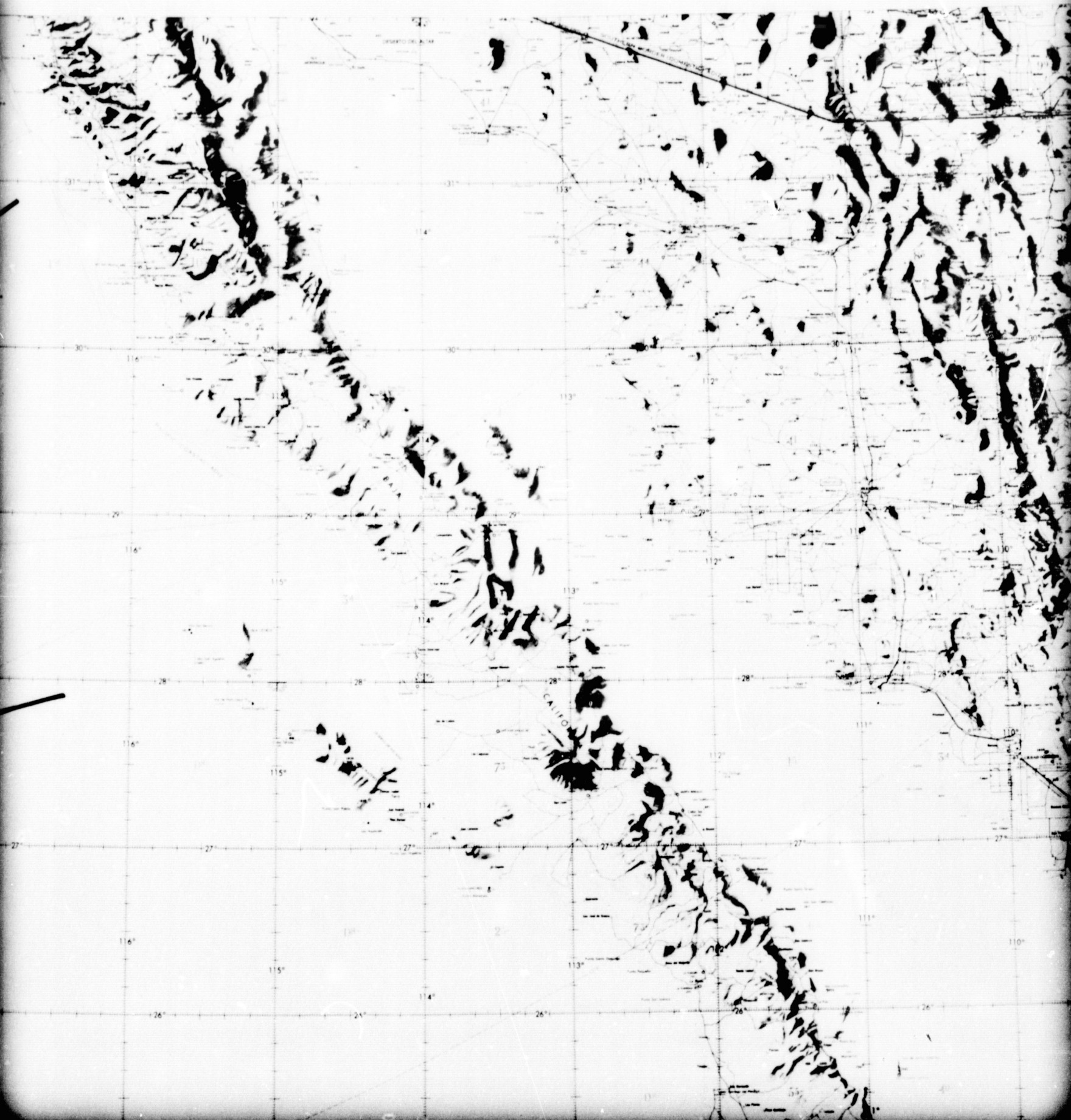
FOLDOUT FRAME

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FOLDOUT FRAME



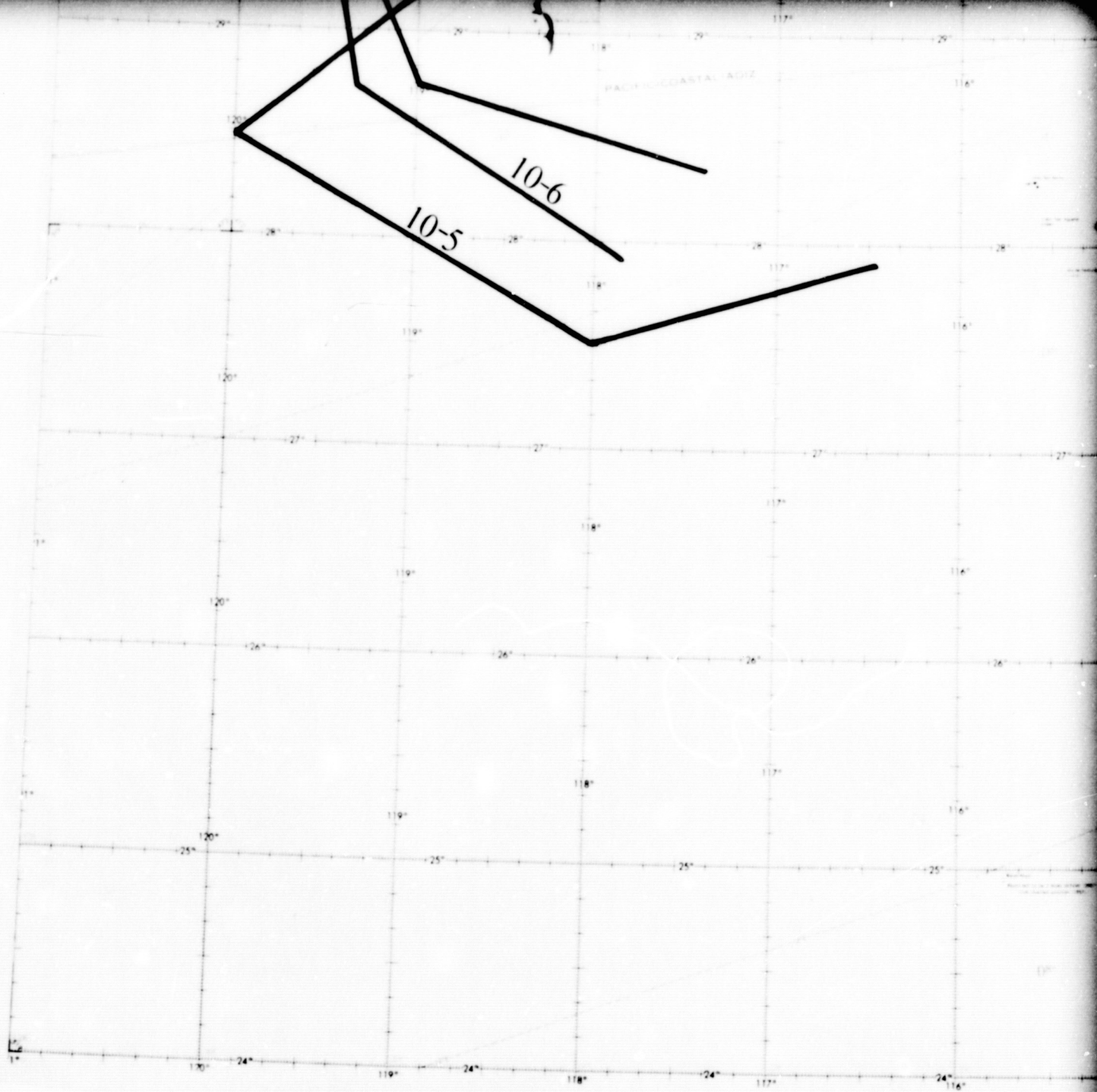
FOLDOUT FRAME 2



FOLDOUT FRAME

3





FOLDOUT FRAME 4

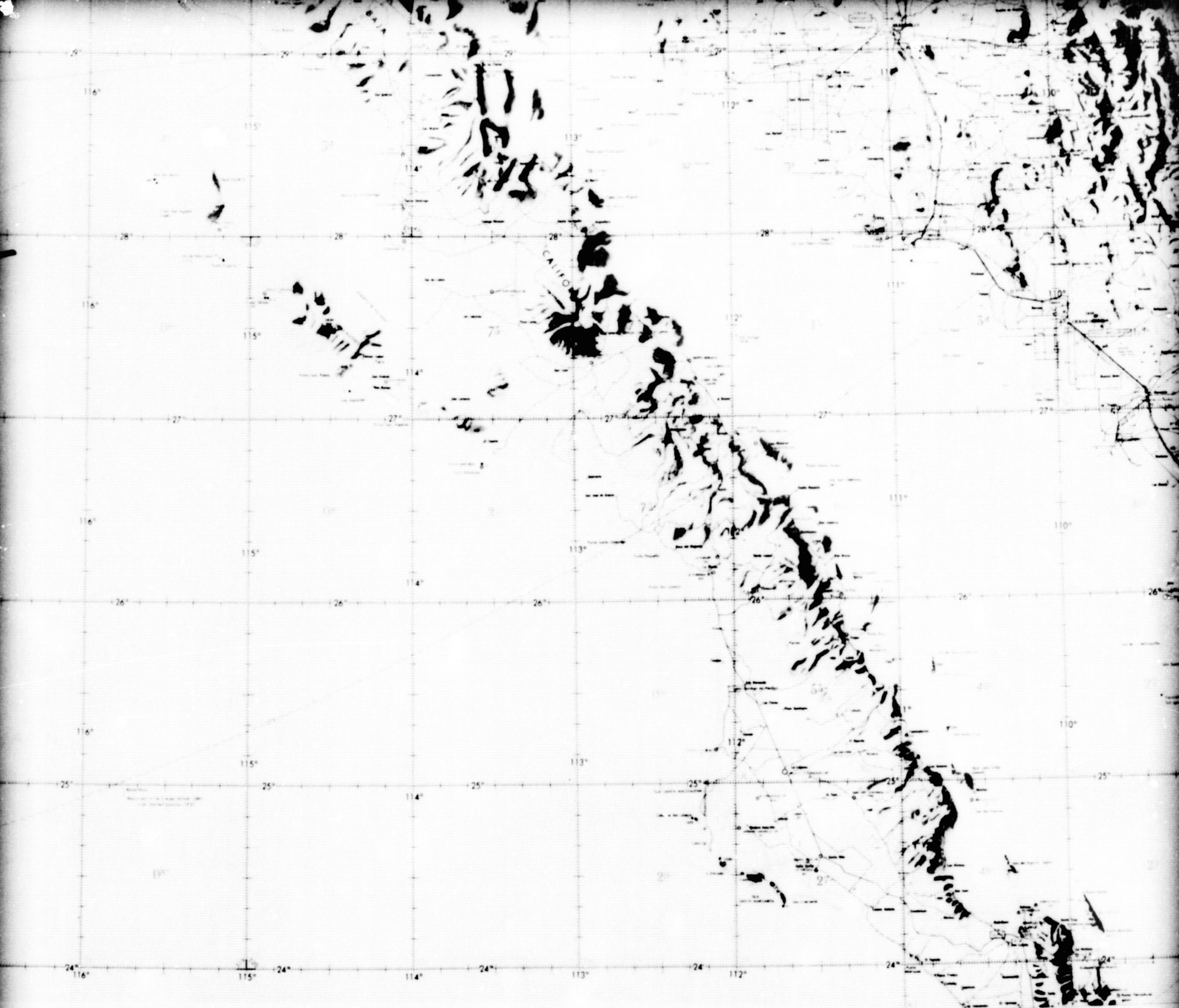
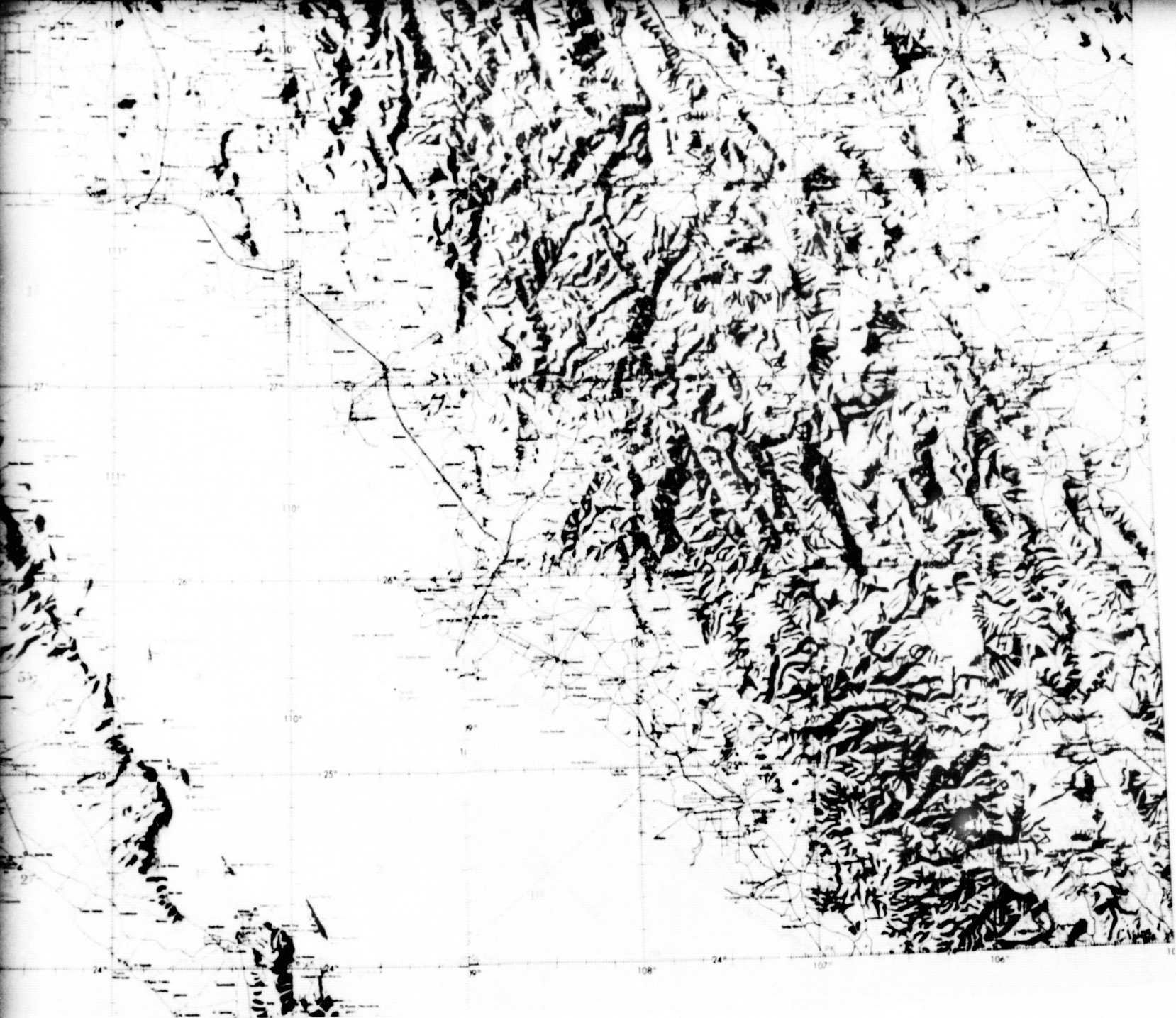


FIGURE 19

GEMINI 10

EASTERN PACIFIC NEAR GUADALUPE ISLAND

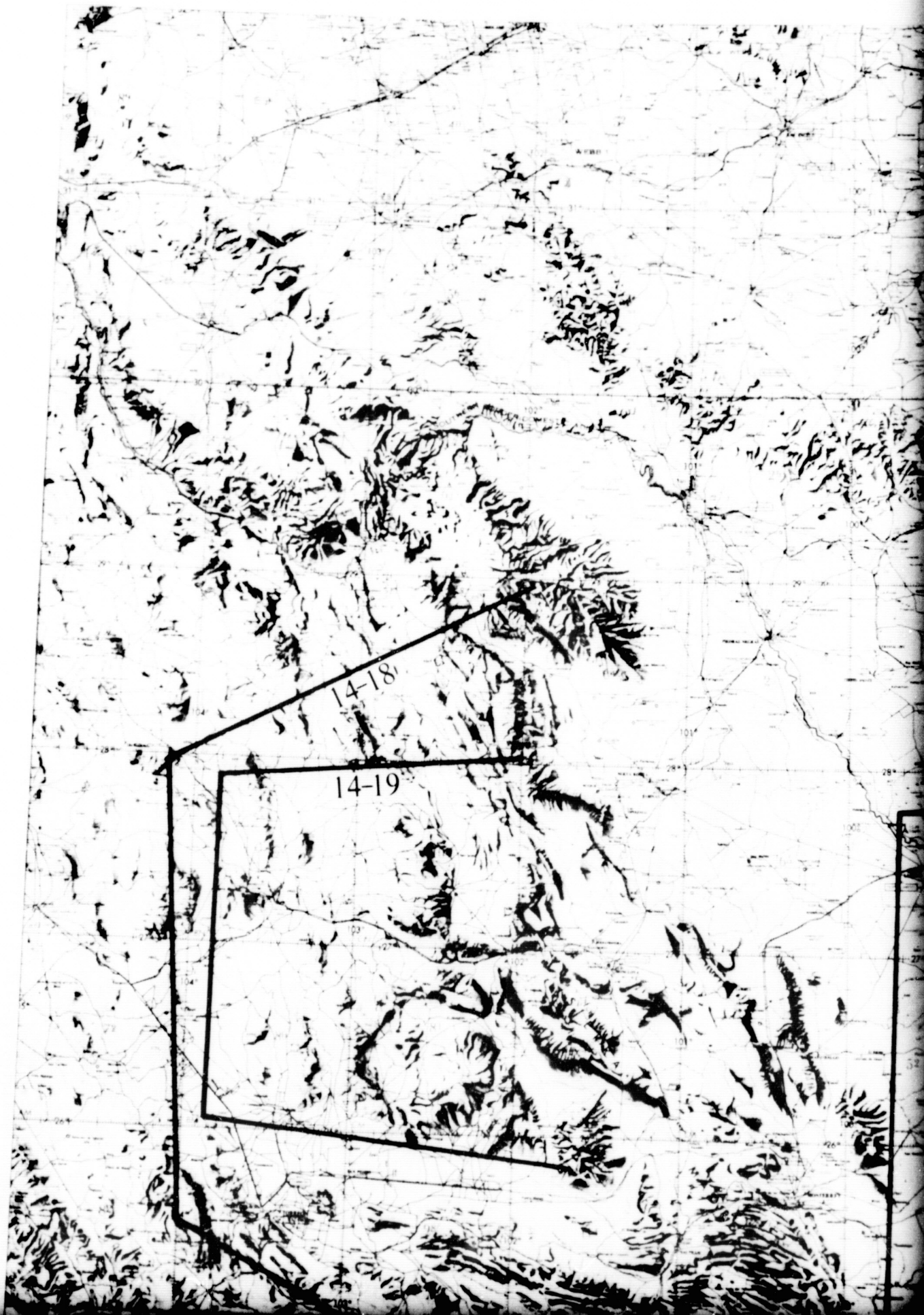
FOLDOUT FRAME 5



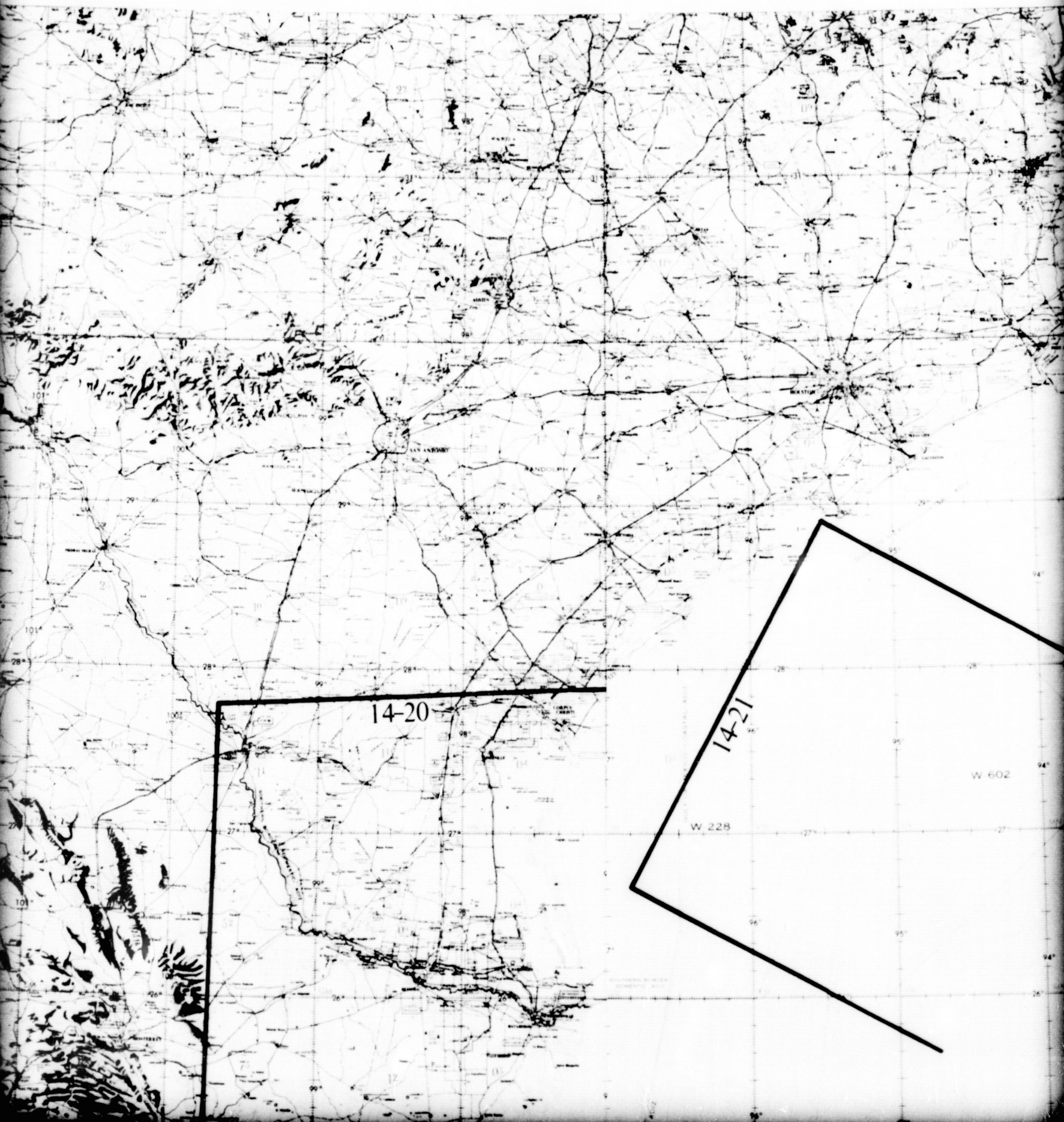
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6

FOLDOUT FRAME /

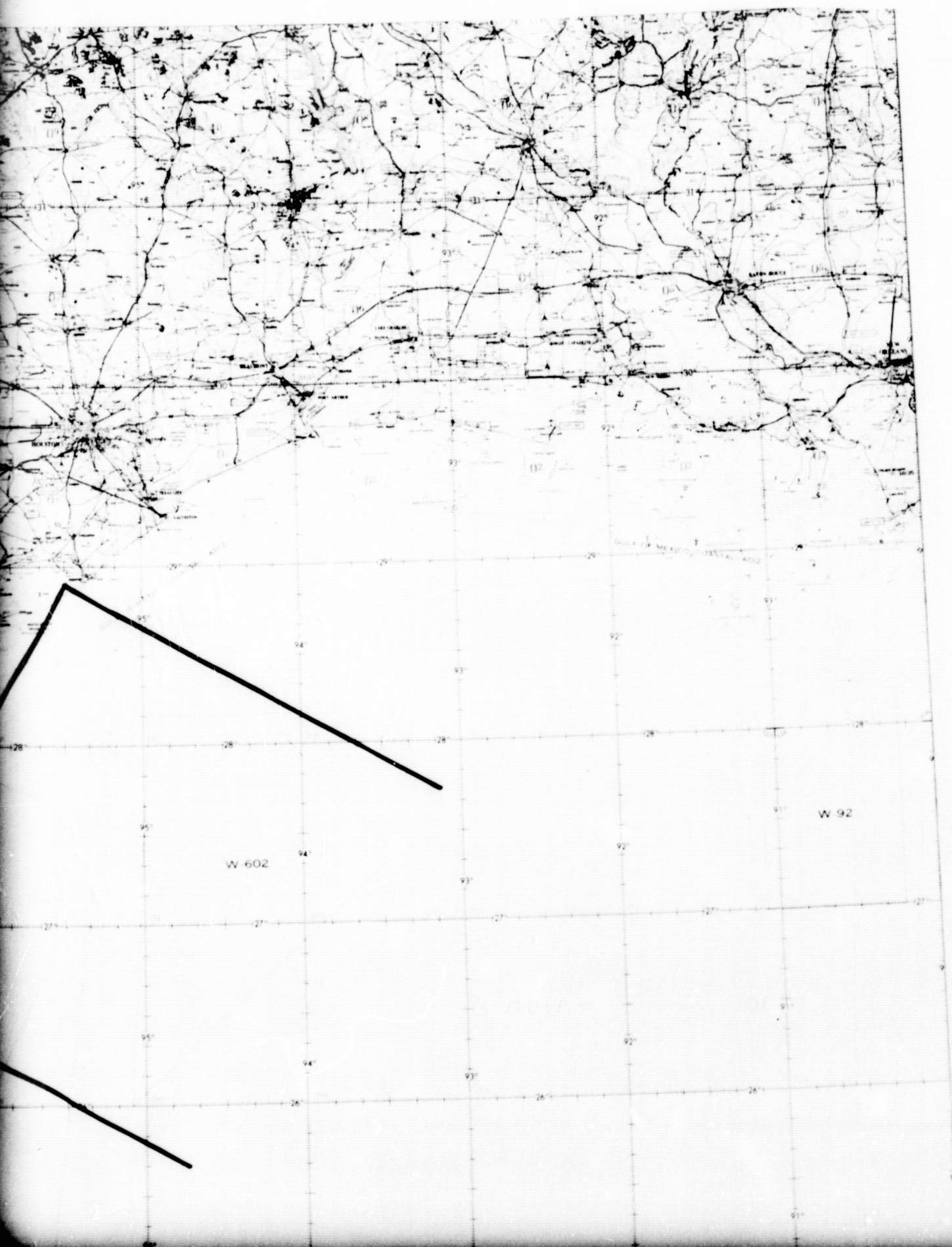


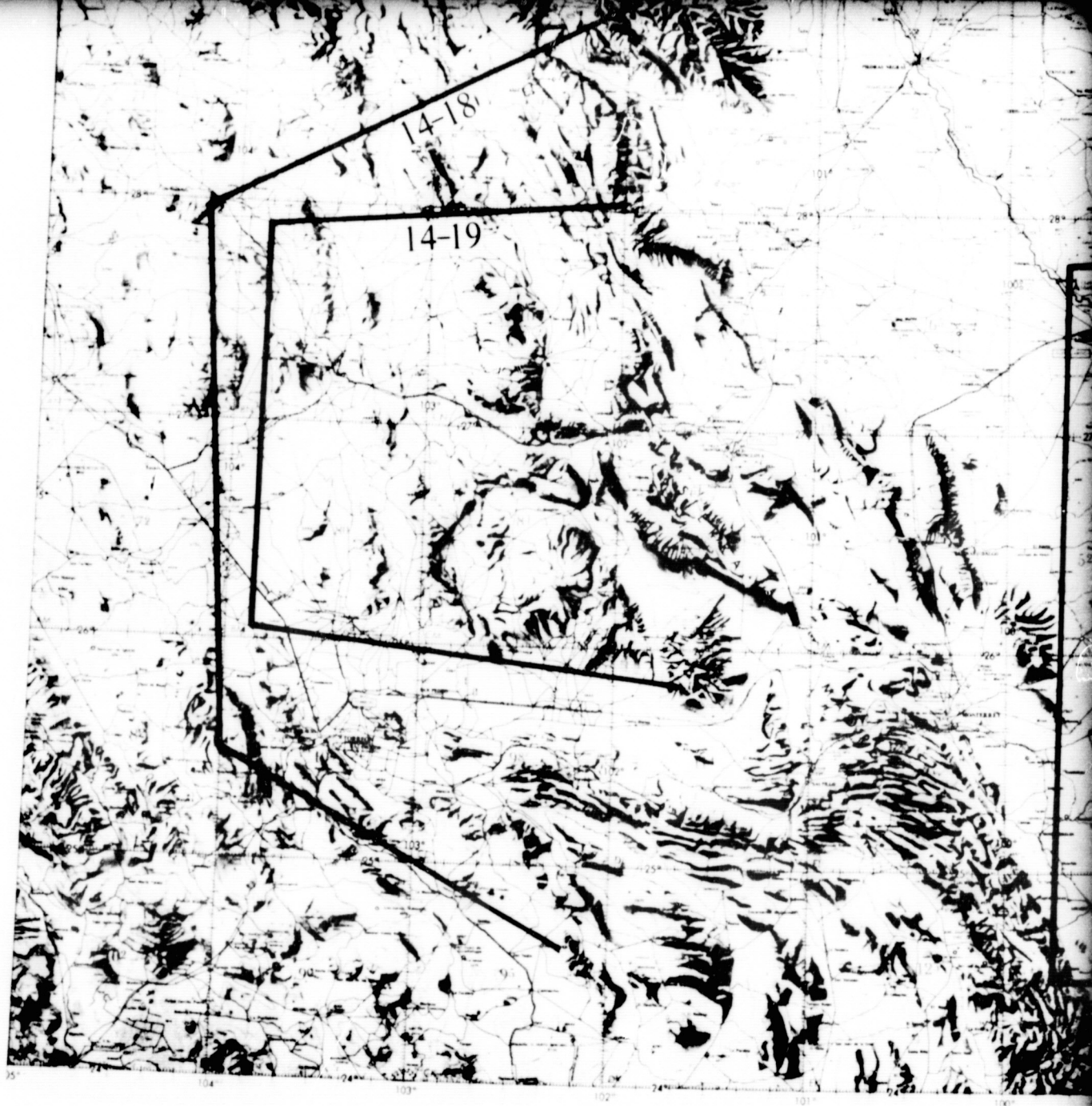
FOLDOUT FRAME 2



FOLDOUT FRAME

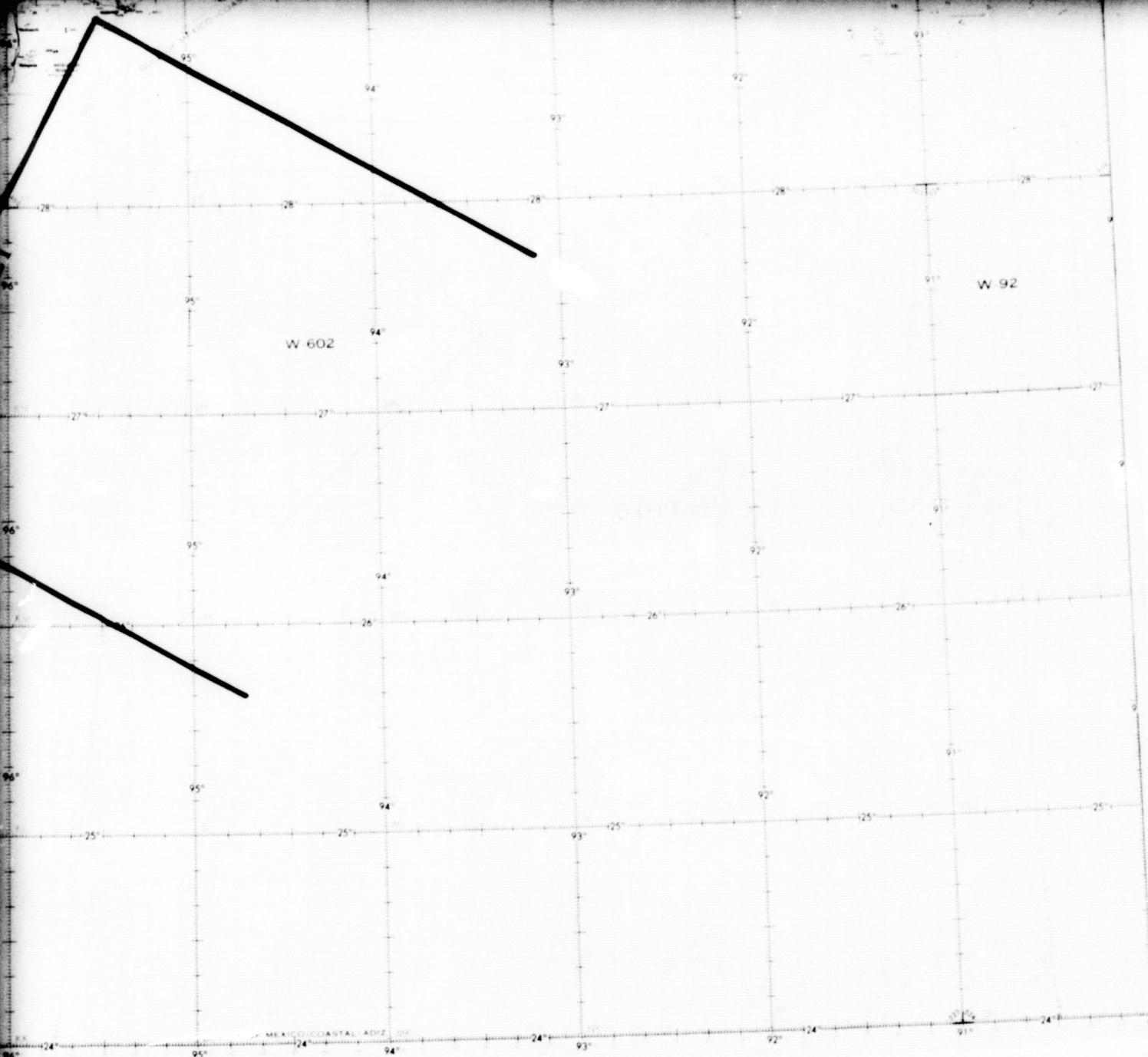
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FOLDOUT FRAME

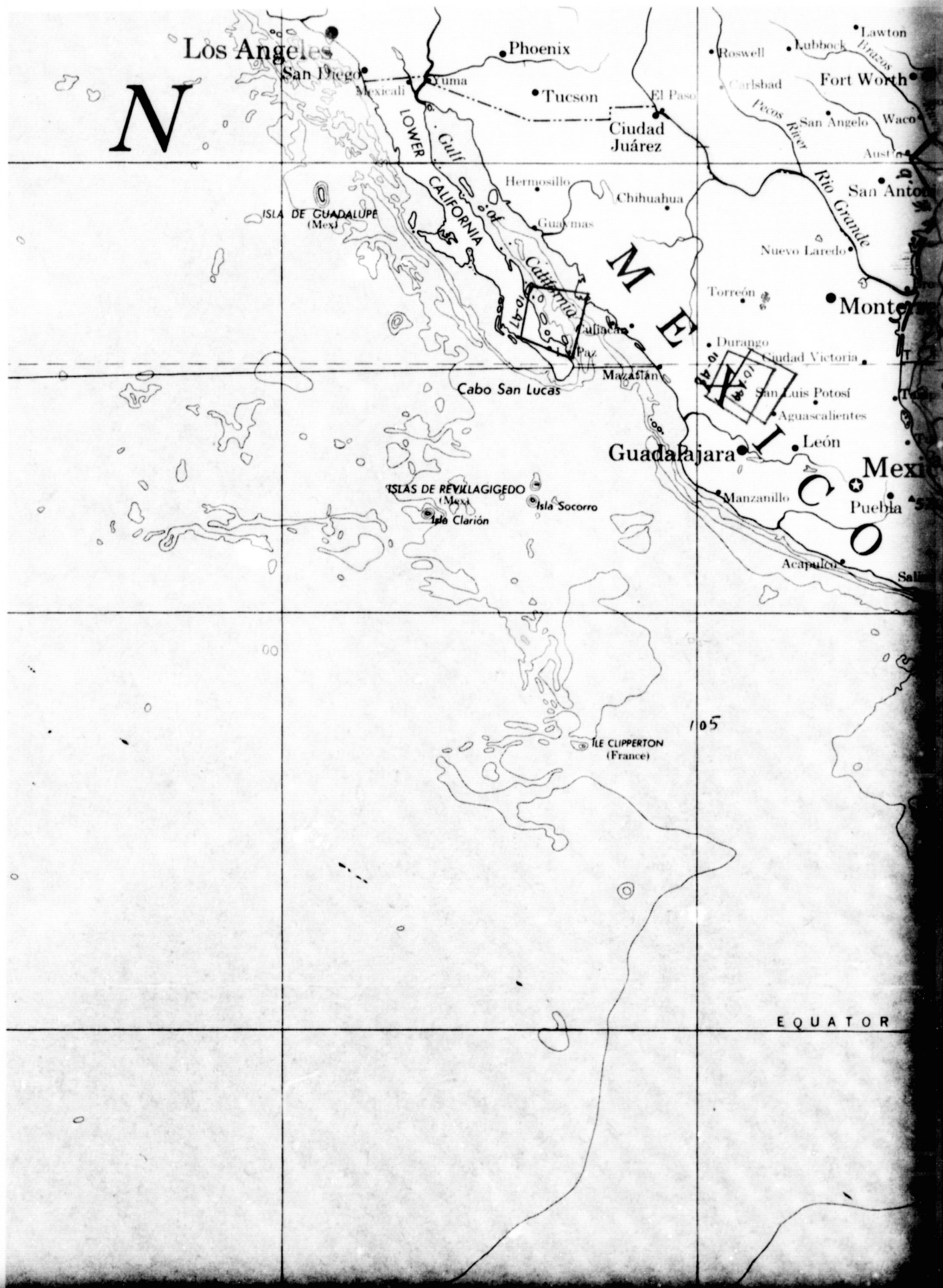
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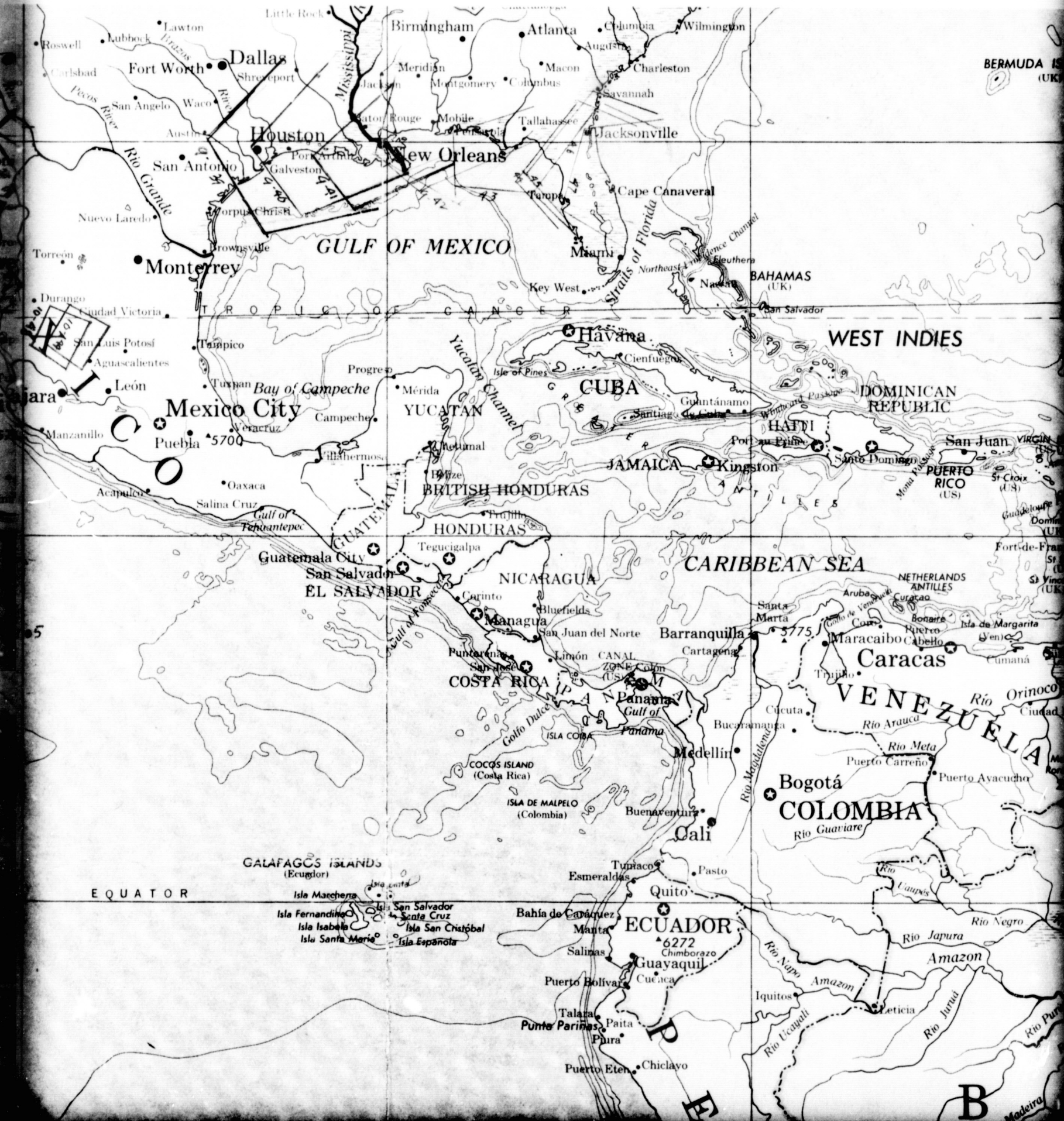


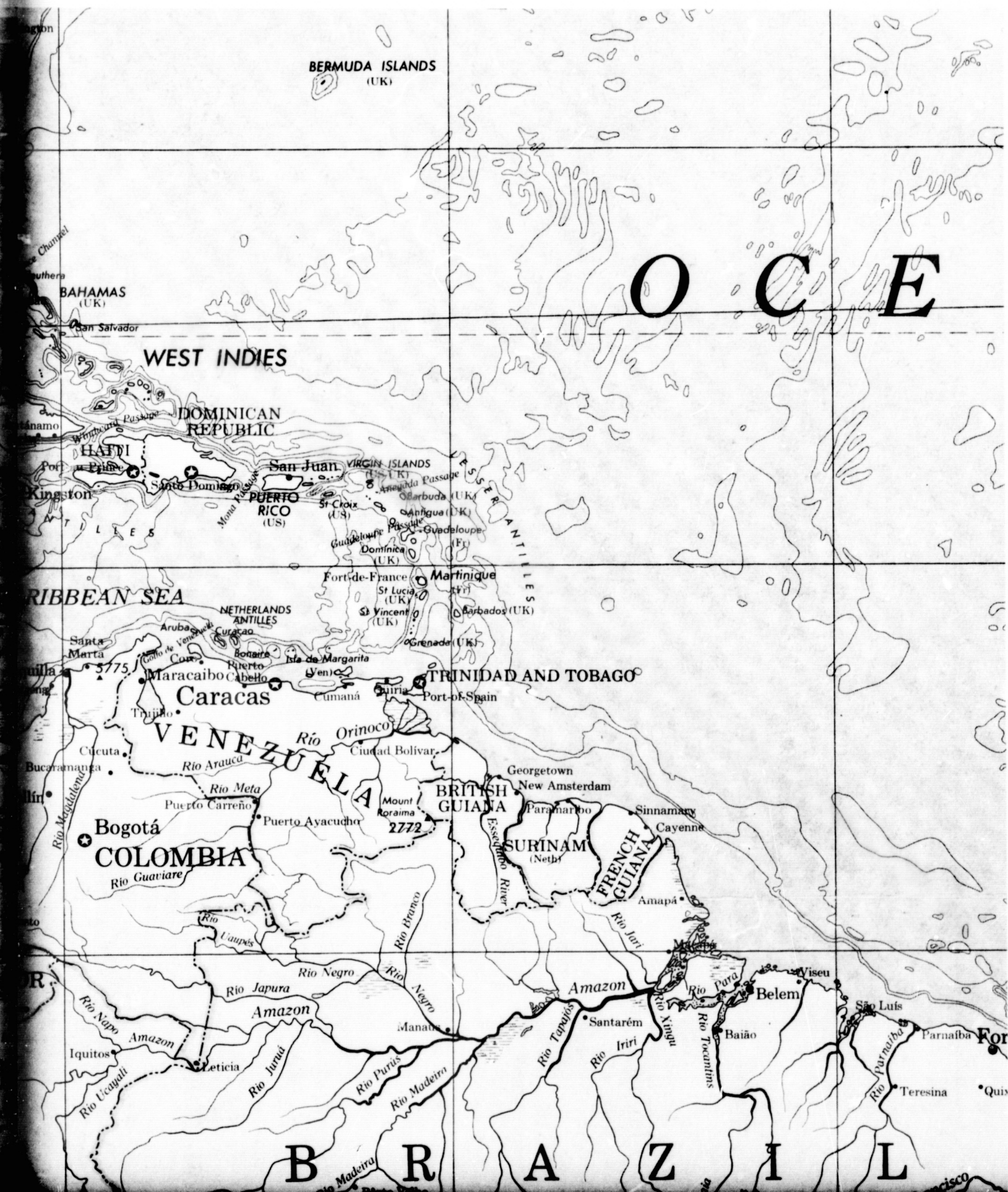
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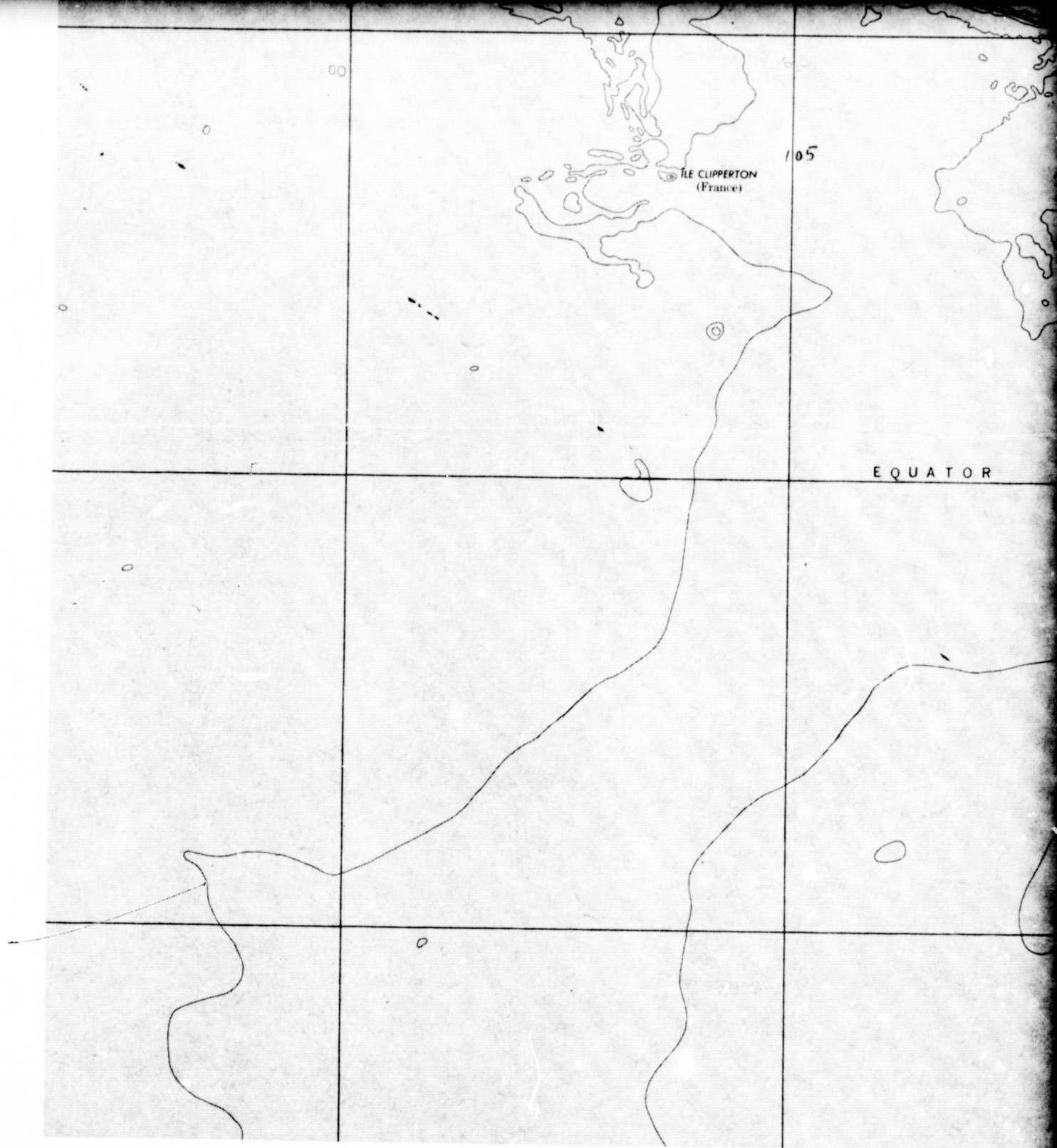
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FOLDOUT FRAME









FOLDOUT FRAME *H*

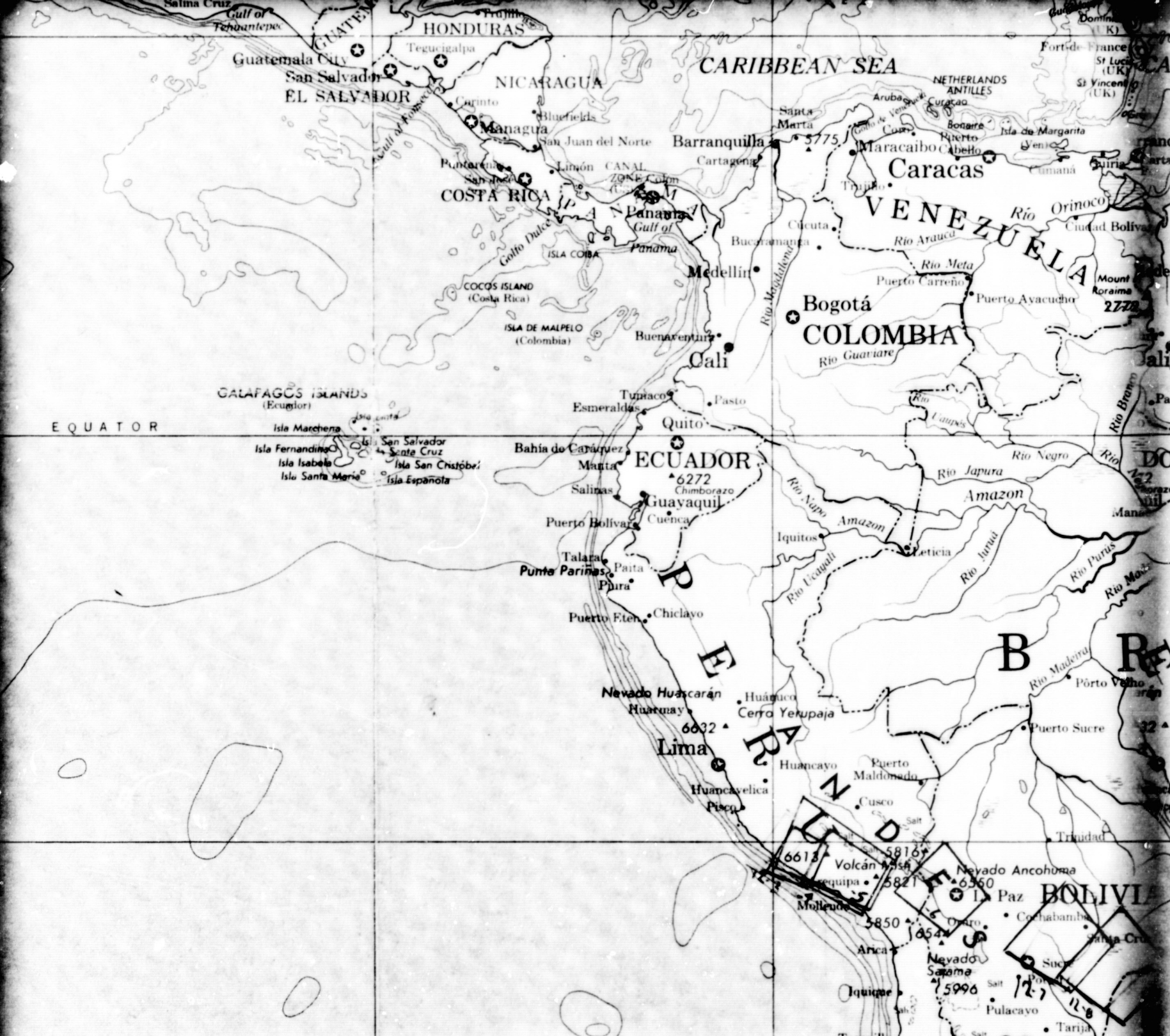


FIGURE 21

GEMINI 11

GULF COAST OF UNITED STATES

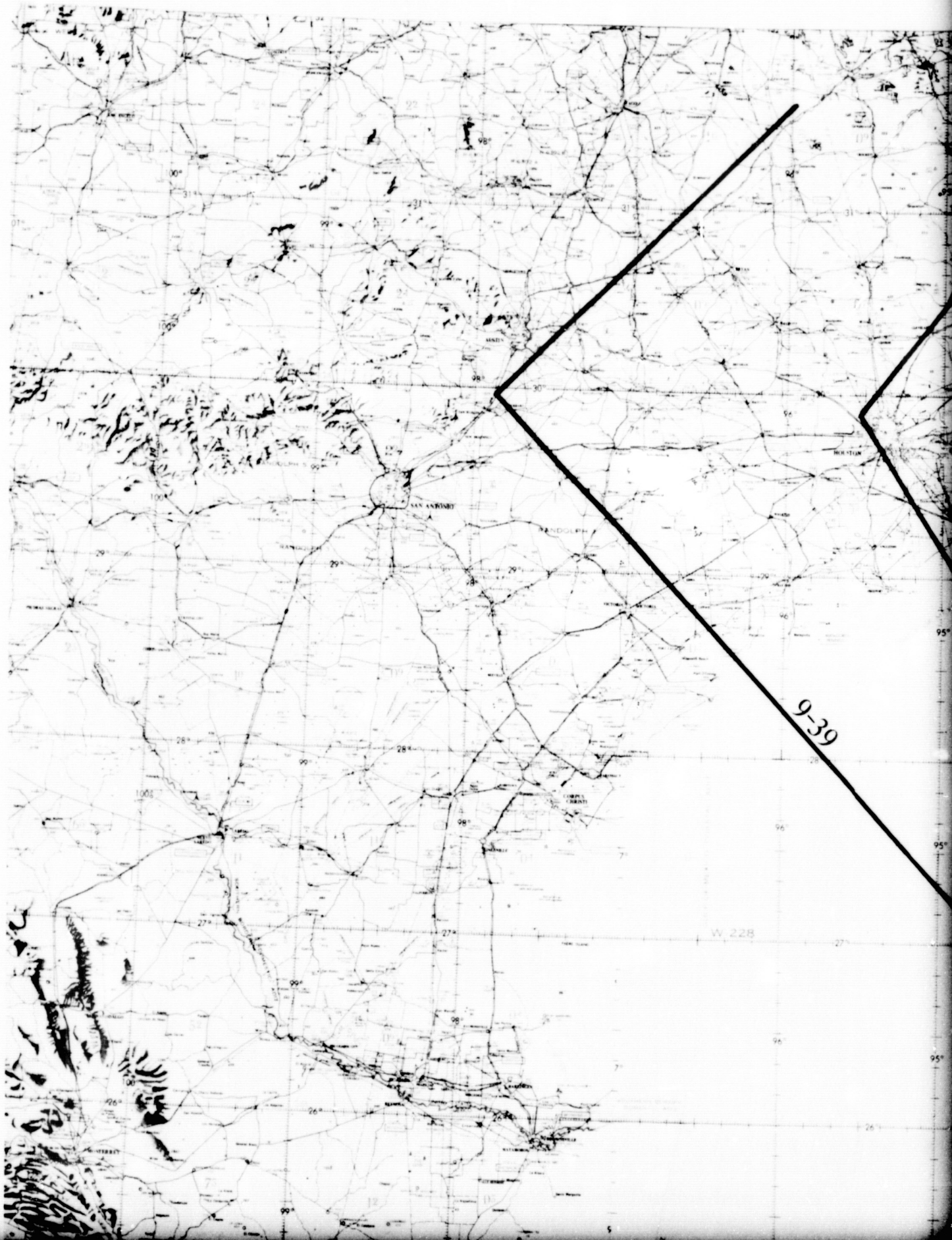
FOLDOUT FRAME S



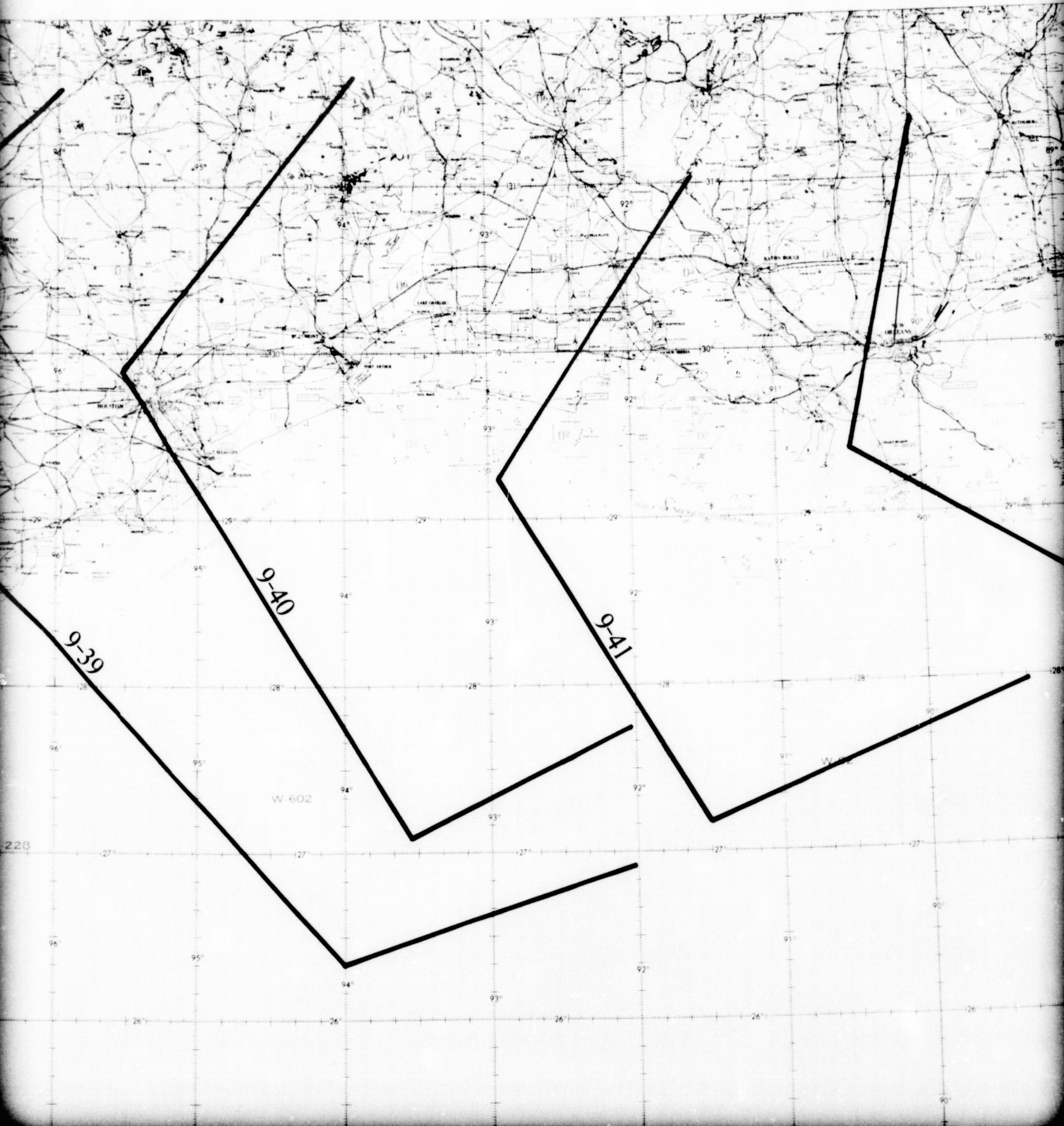
FOLDOUT FRAME

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FOLDOUT FRAME

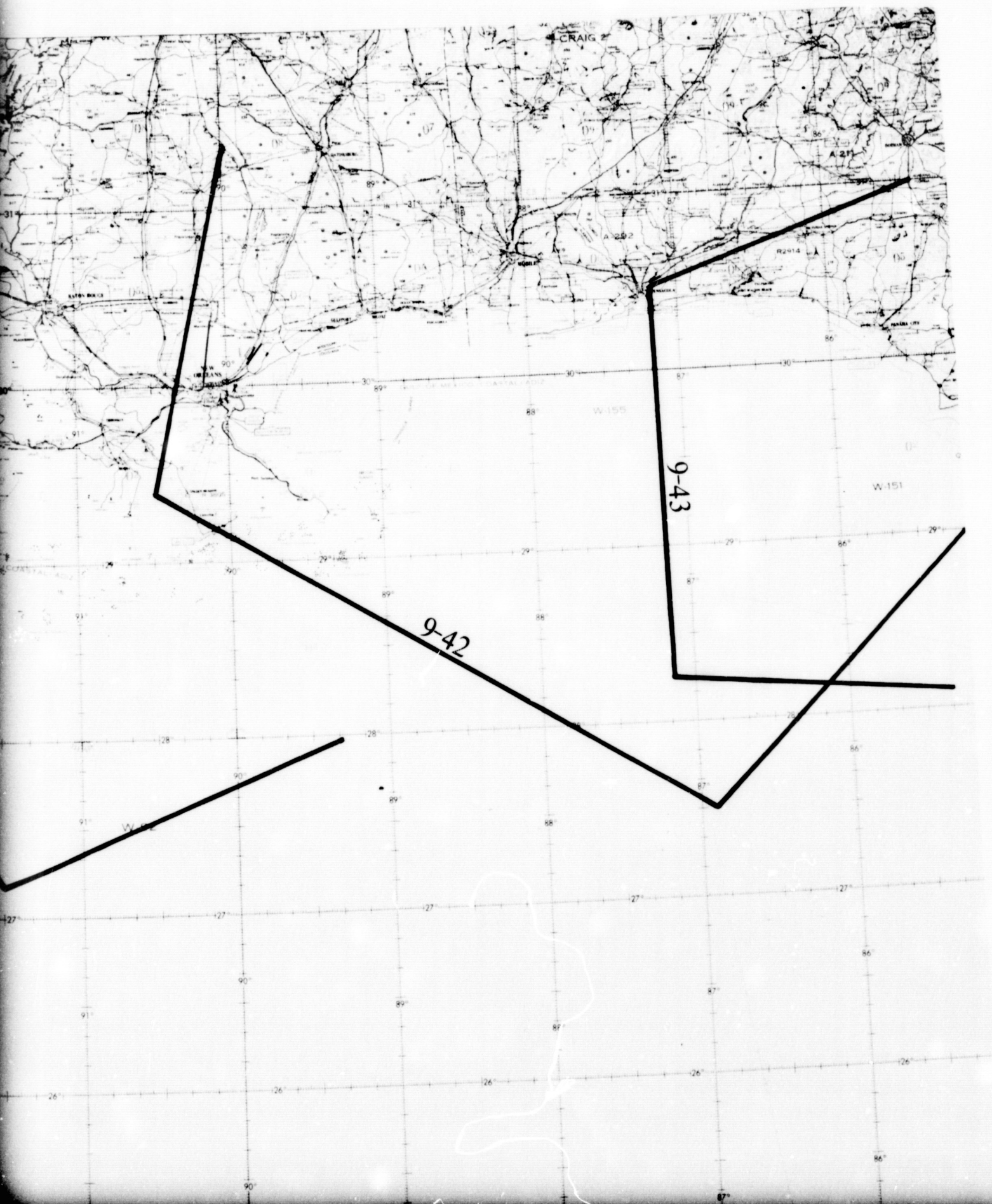


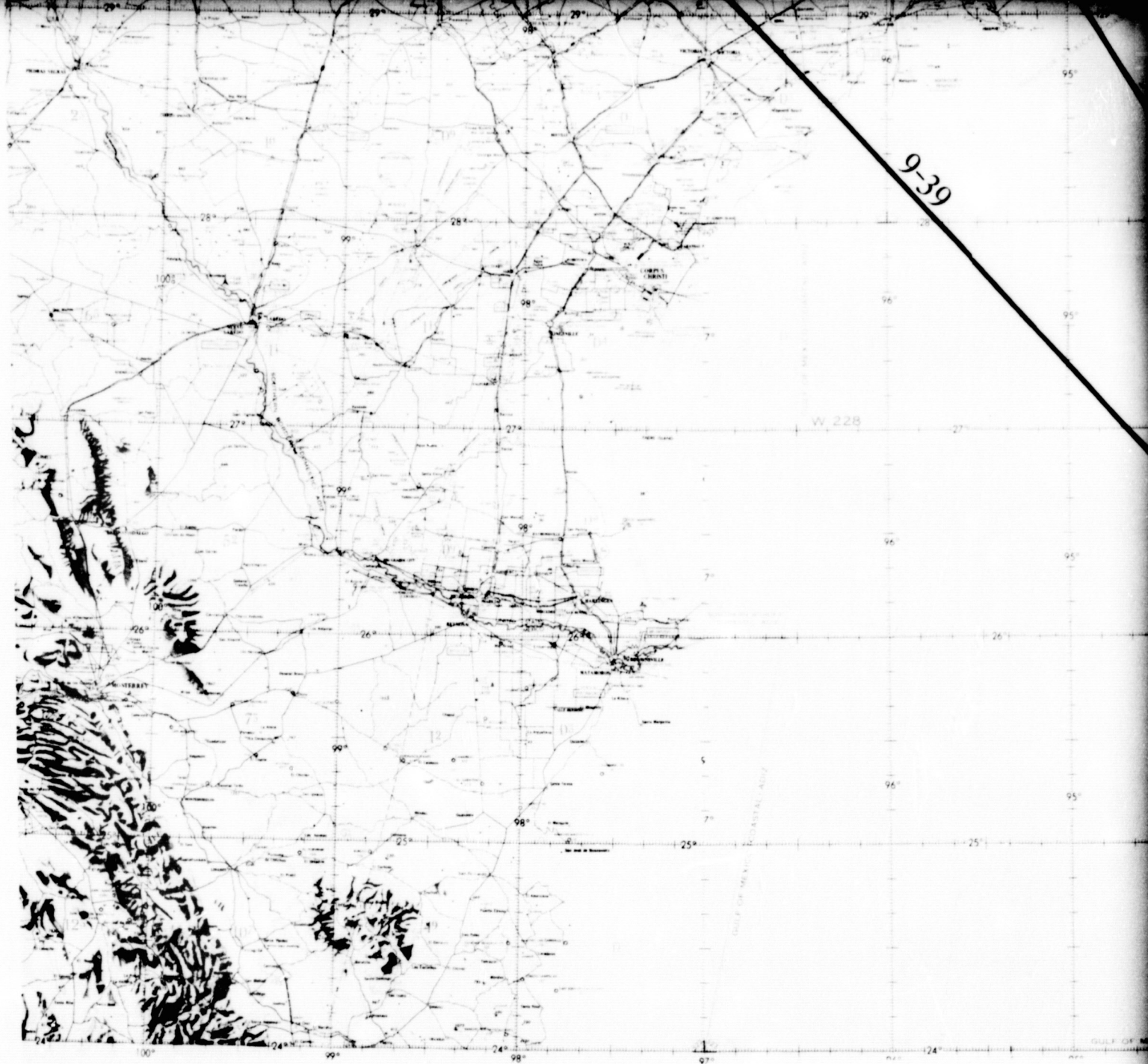
FOLDOUT FRAME 2



FOLDOUT FRAME
3

3





FOLDOUT FRAME 4

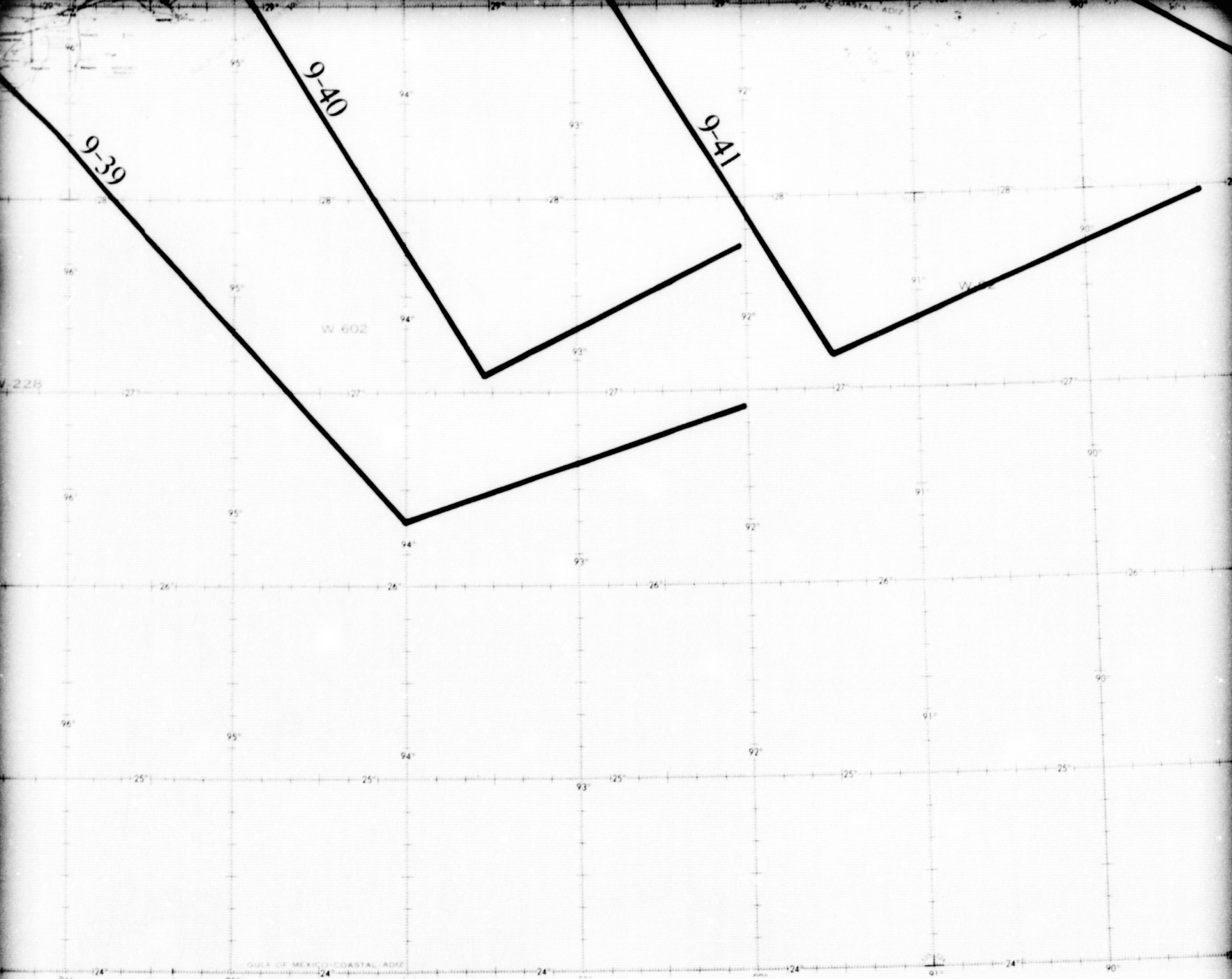


FIGURE 22

GEMINI 11

GULF COAST OF UNITED STATES

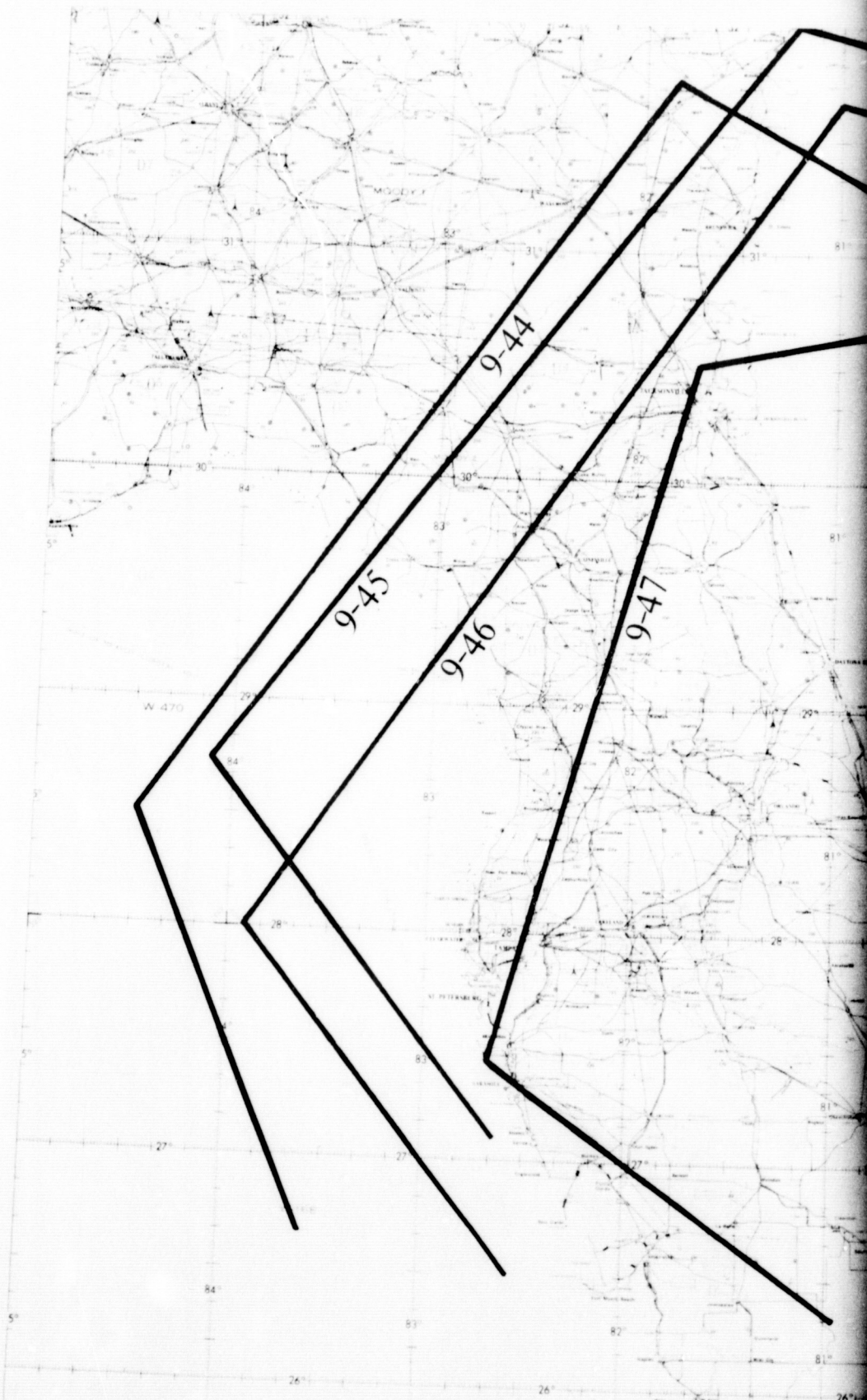
FOLDOUT FRAME 5

9-42

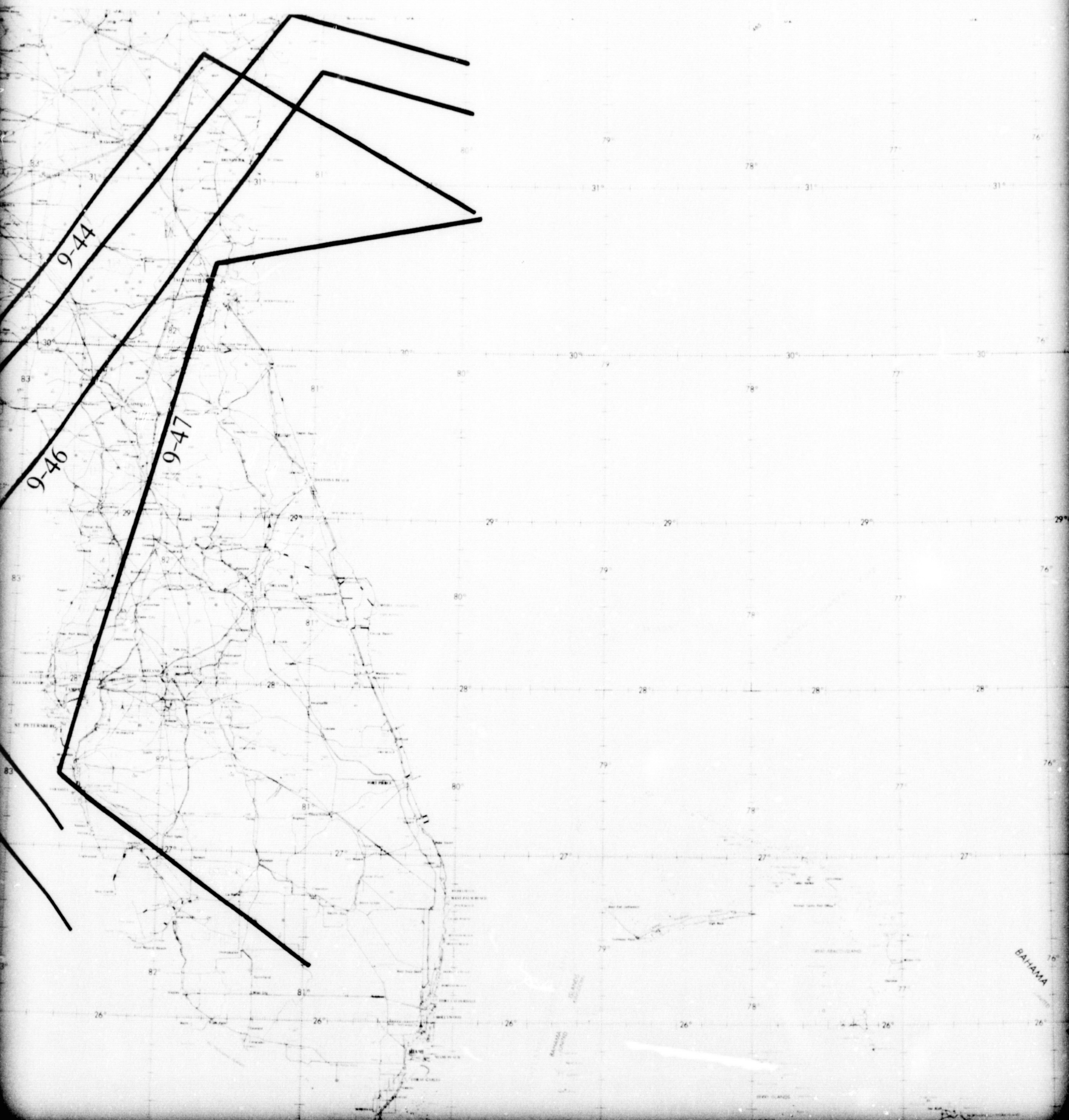
FOLDOUT FRAME

6

FOLDOUT FRAME /

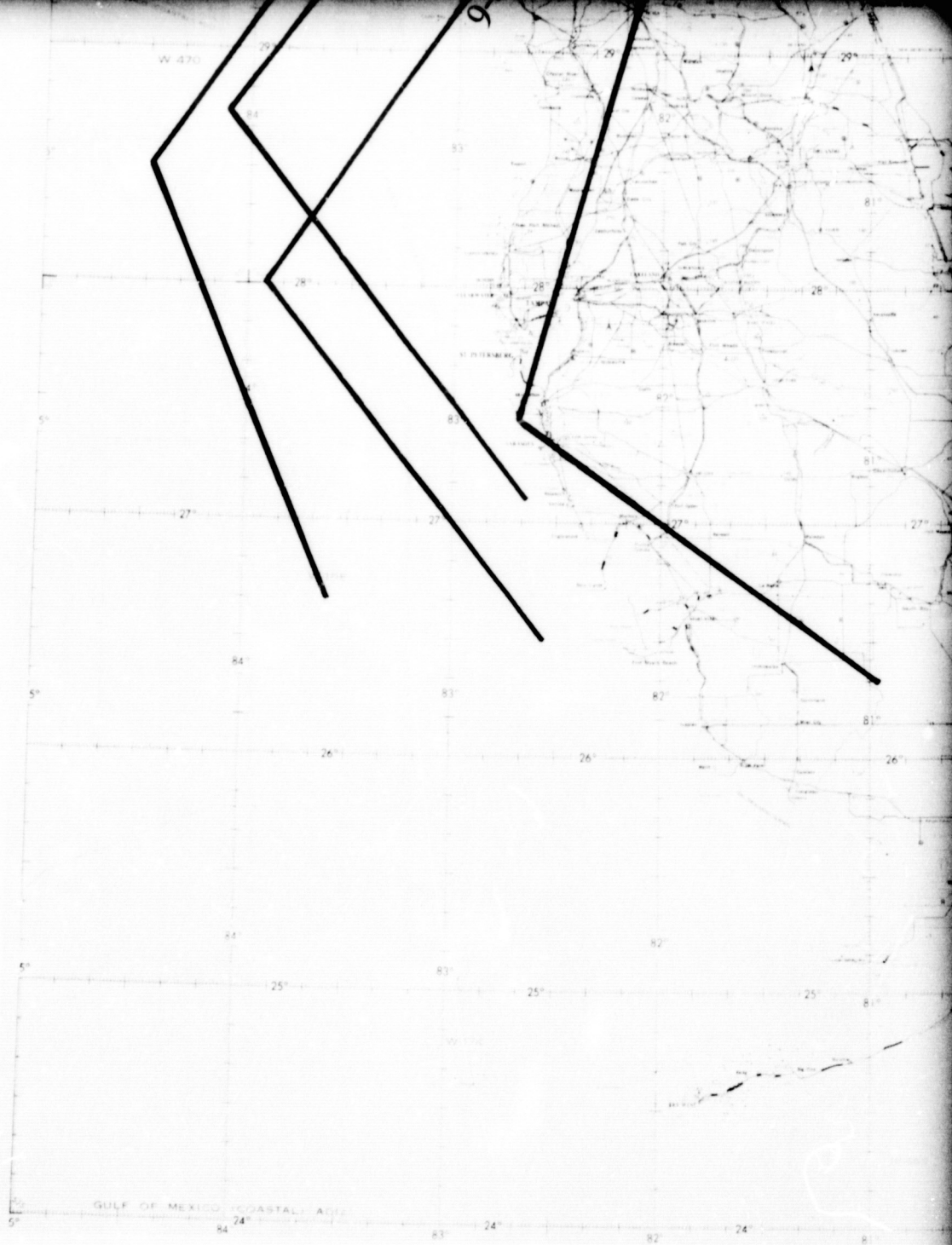


FOLDOUT FRAME 2



FOLDOUT FRAME 3





FOLDOUT FRAME

4

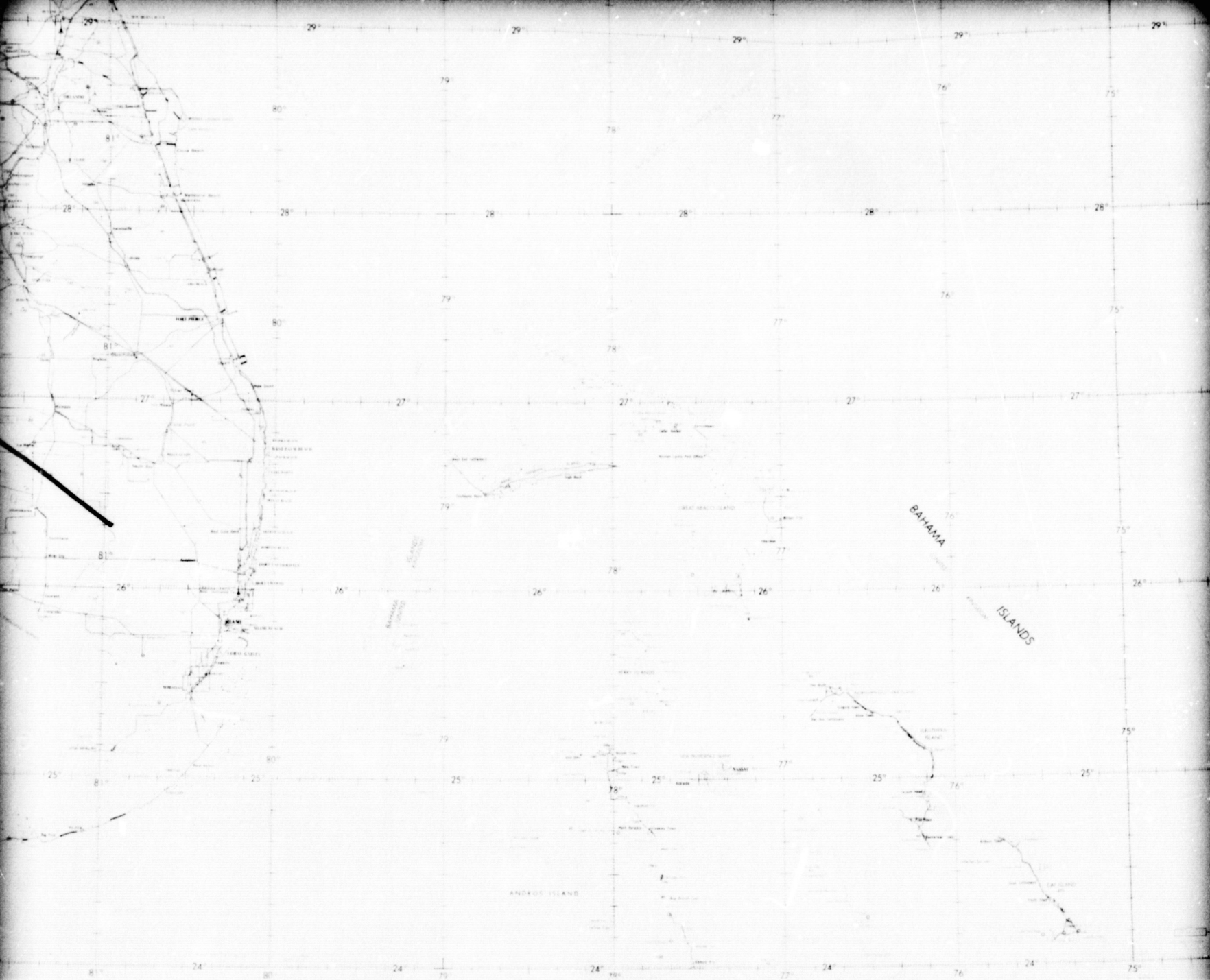
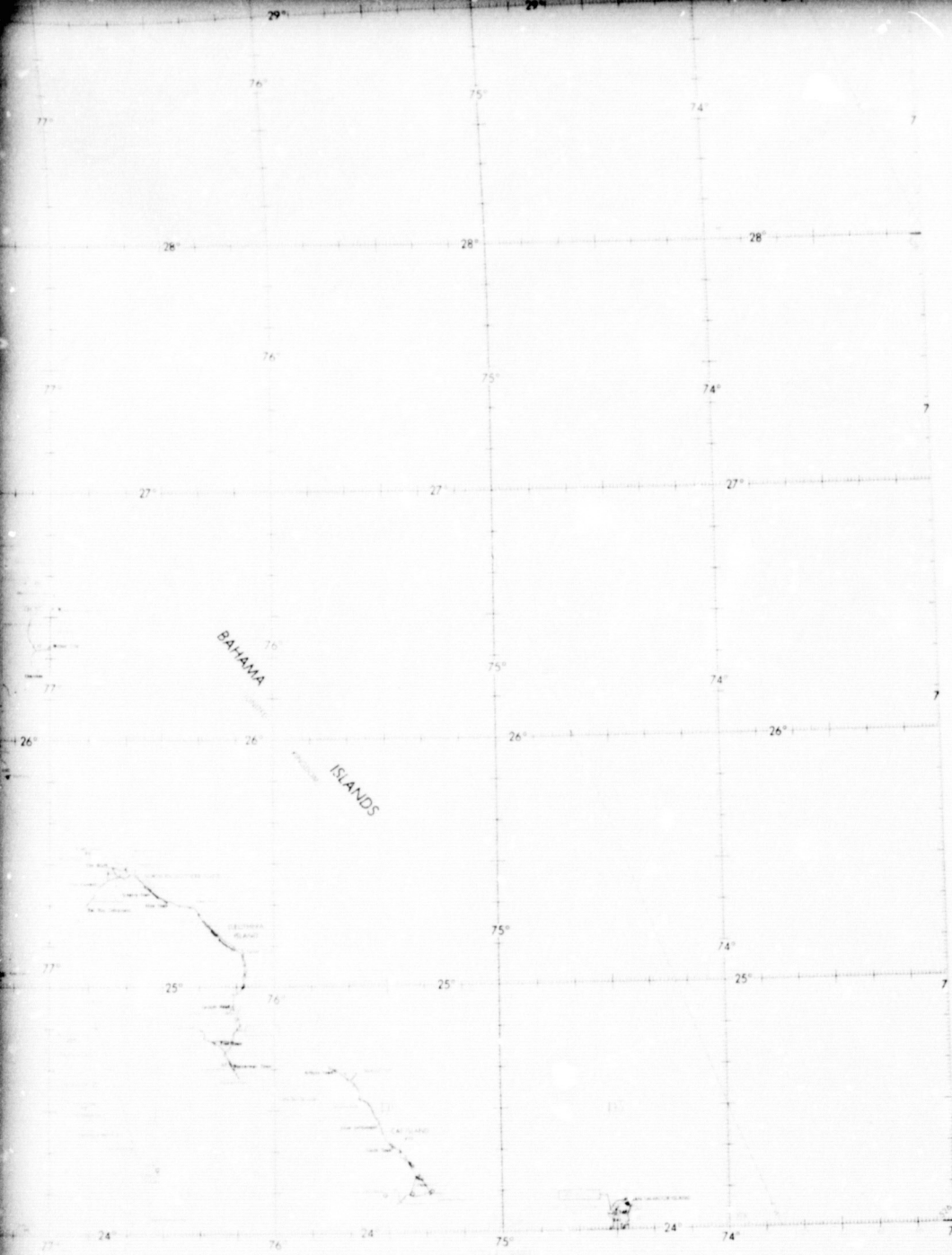


FIGURE 23

GEMINI 11

FLORIDA

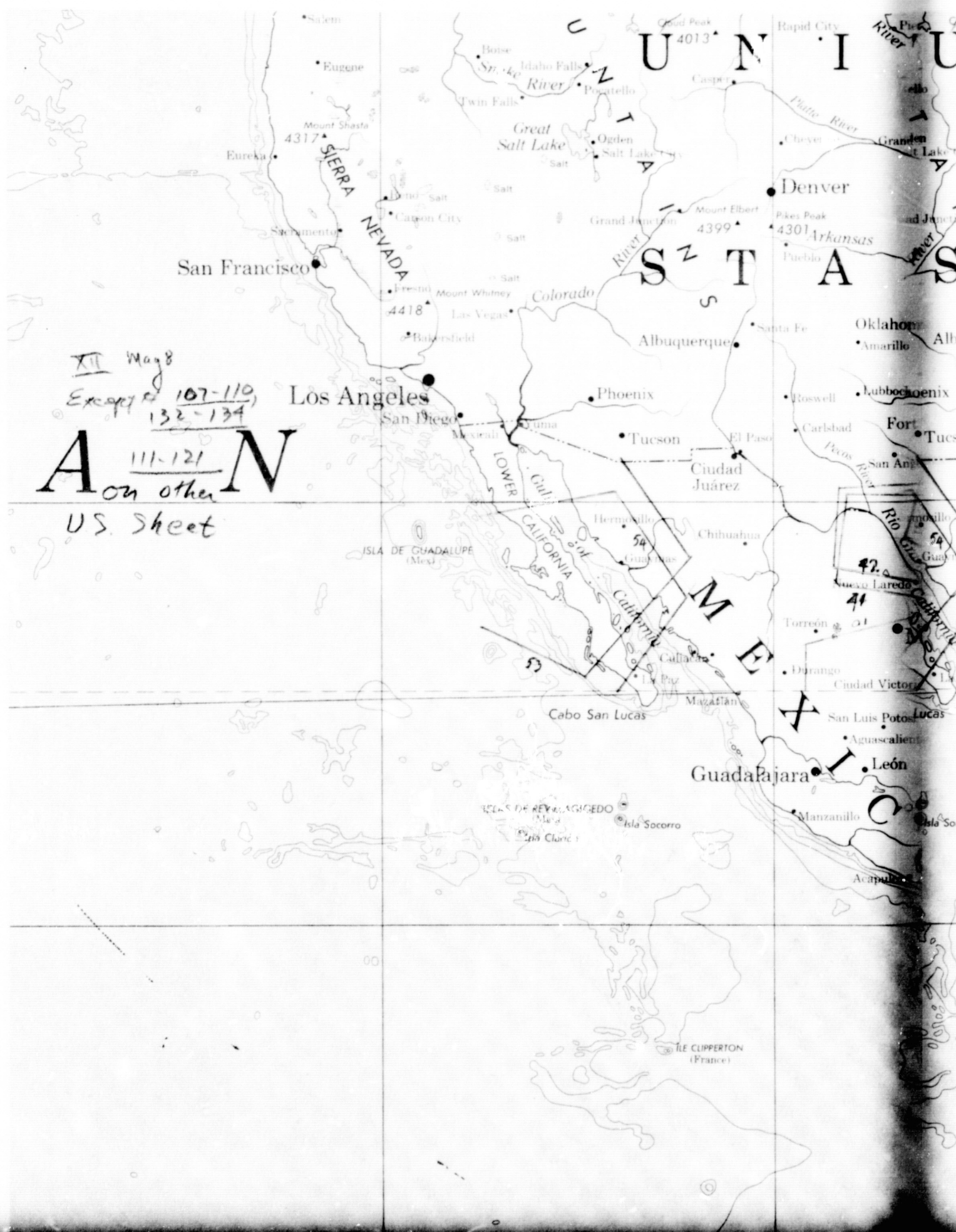
FOLDOUT FRAME 5



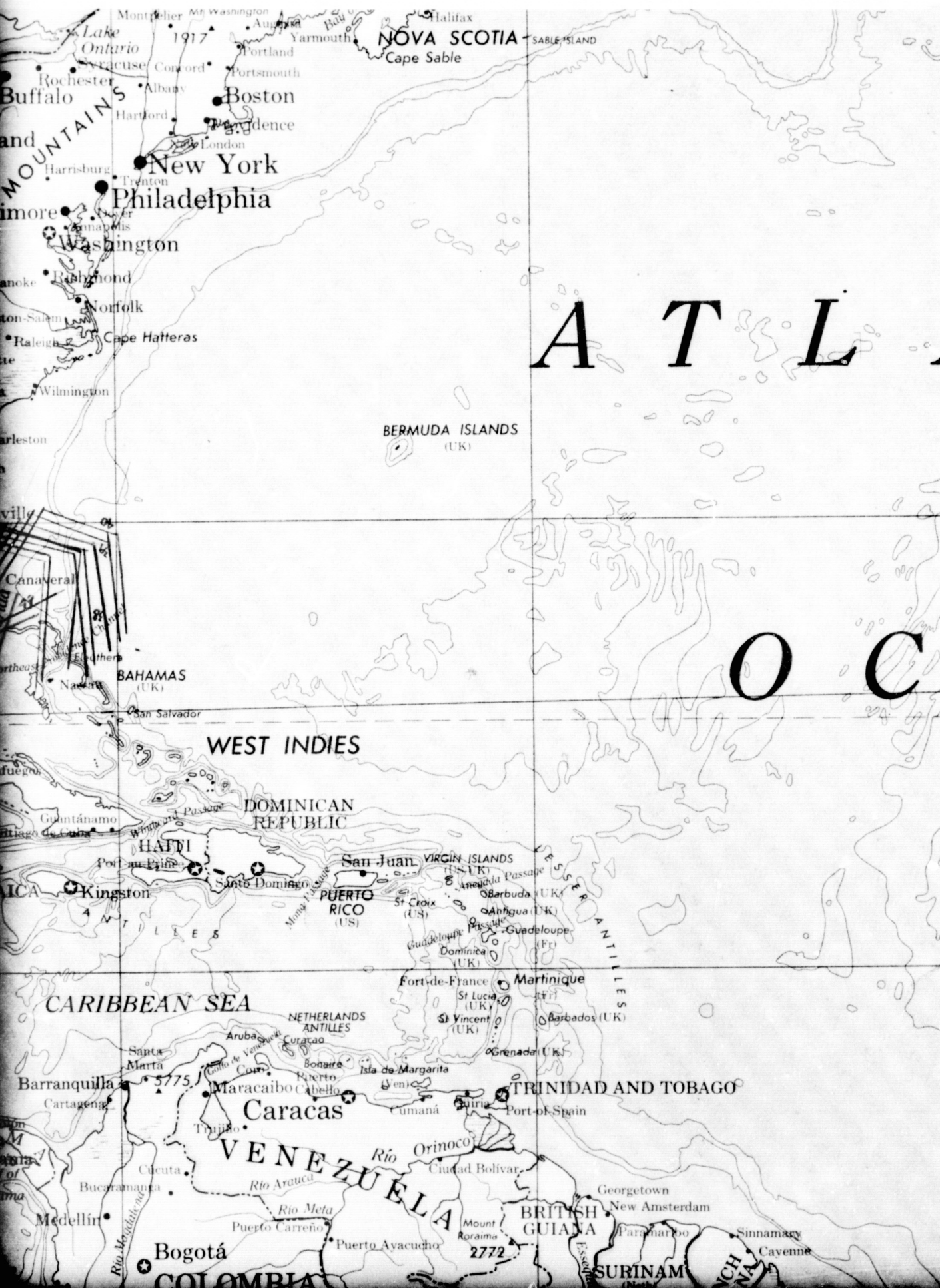
FOLDOUT FRAME

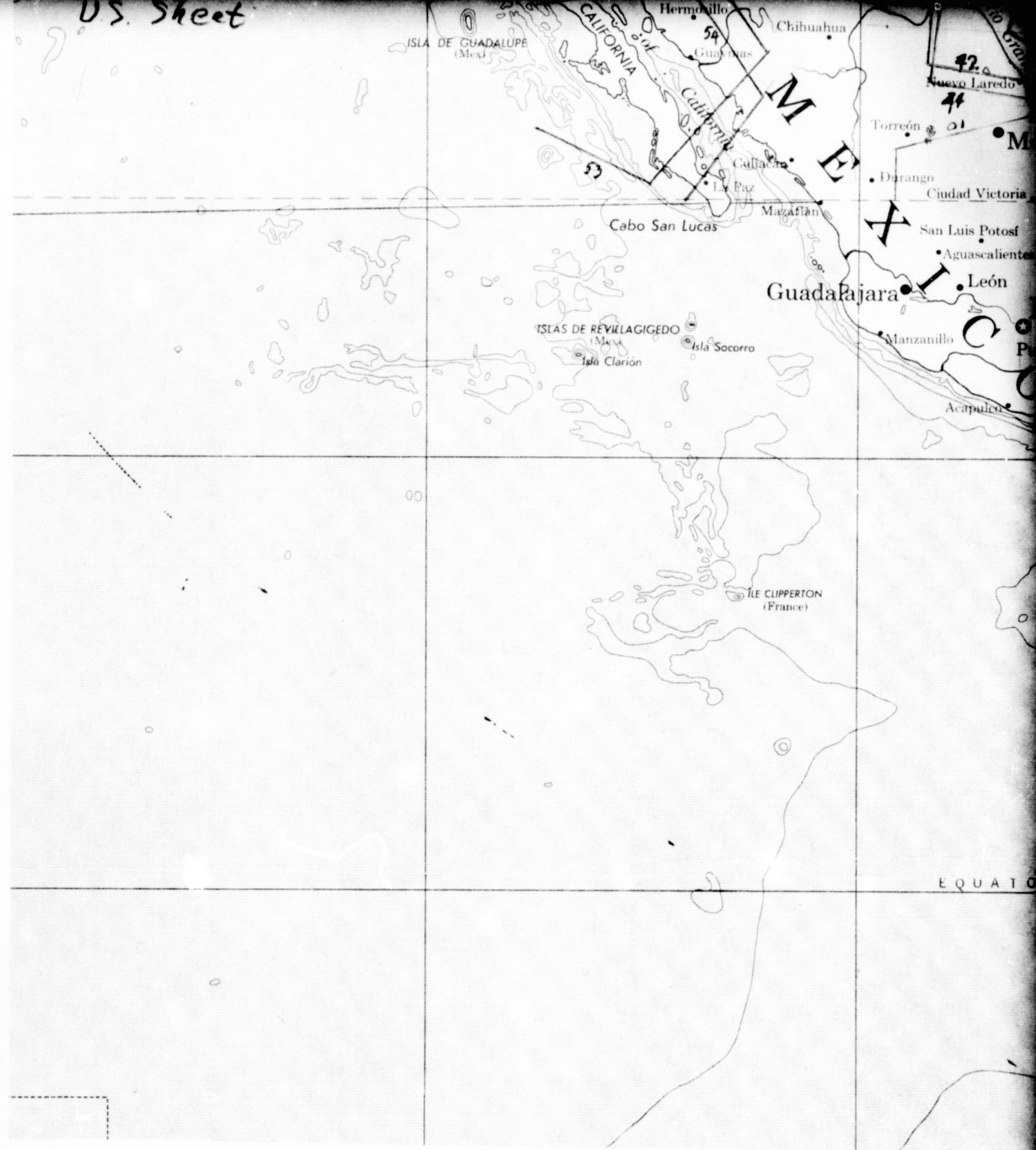
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FOLDOUT FRAME /









FOLDOUT FRAME

4

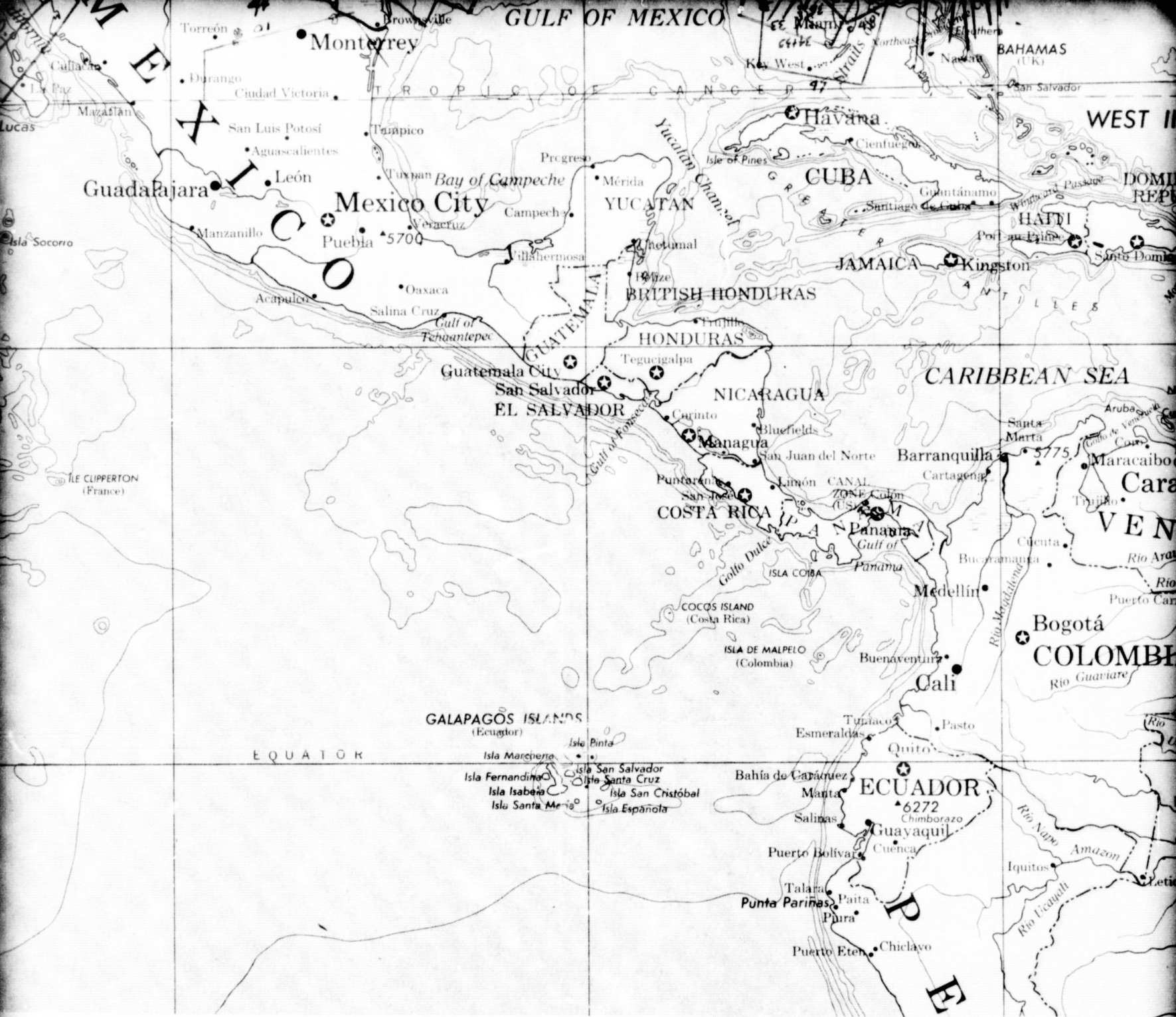


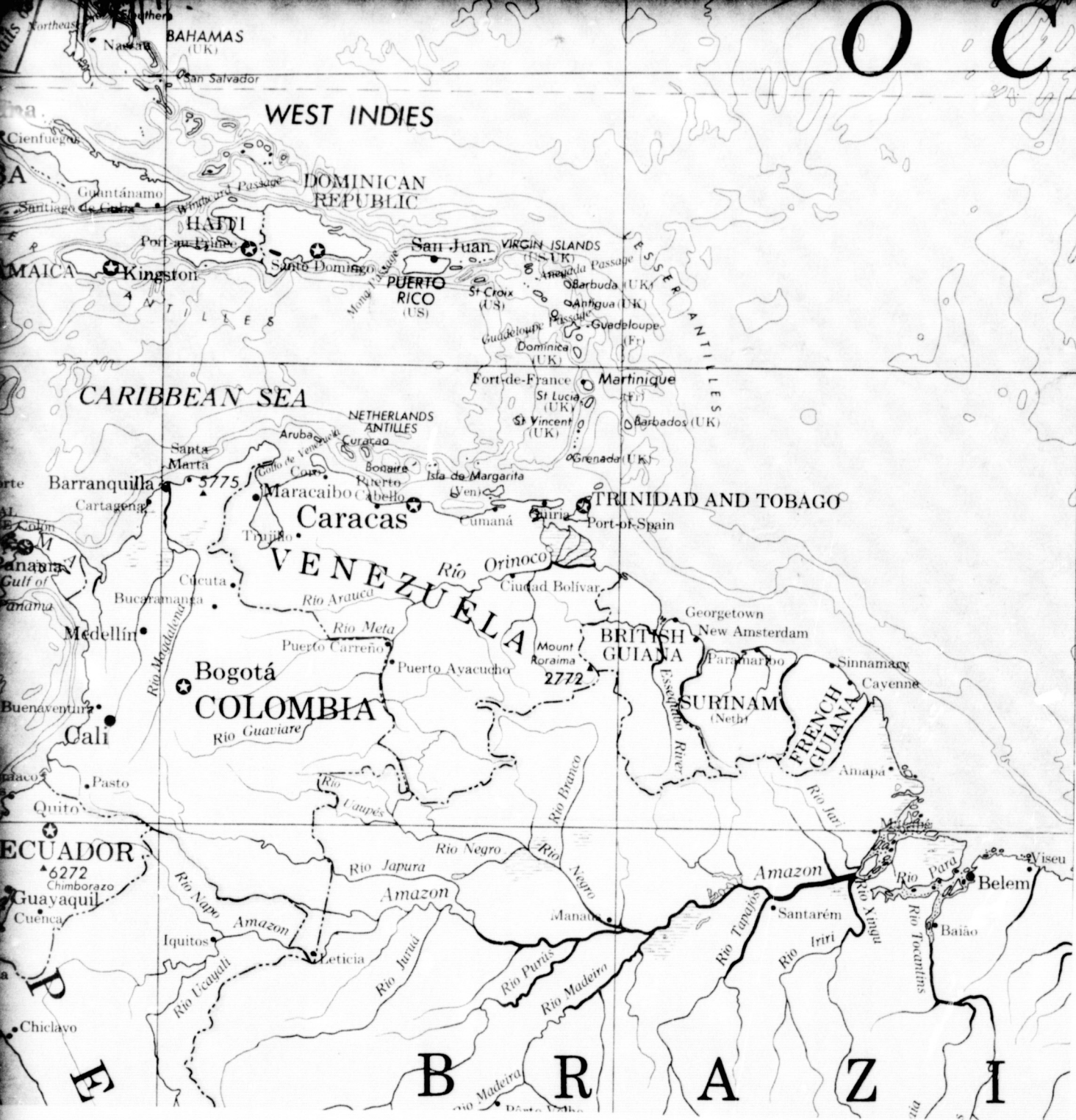
FIGURE 24

GEMINI 12

FIRST PART (PART OF MAGAZINE 8)

FOLDOUT FRAME

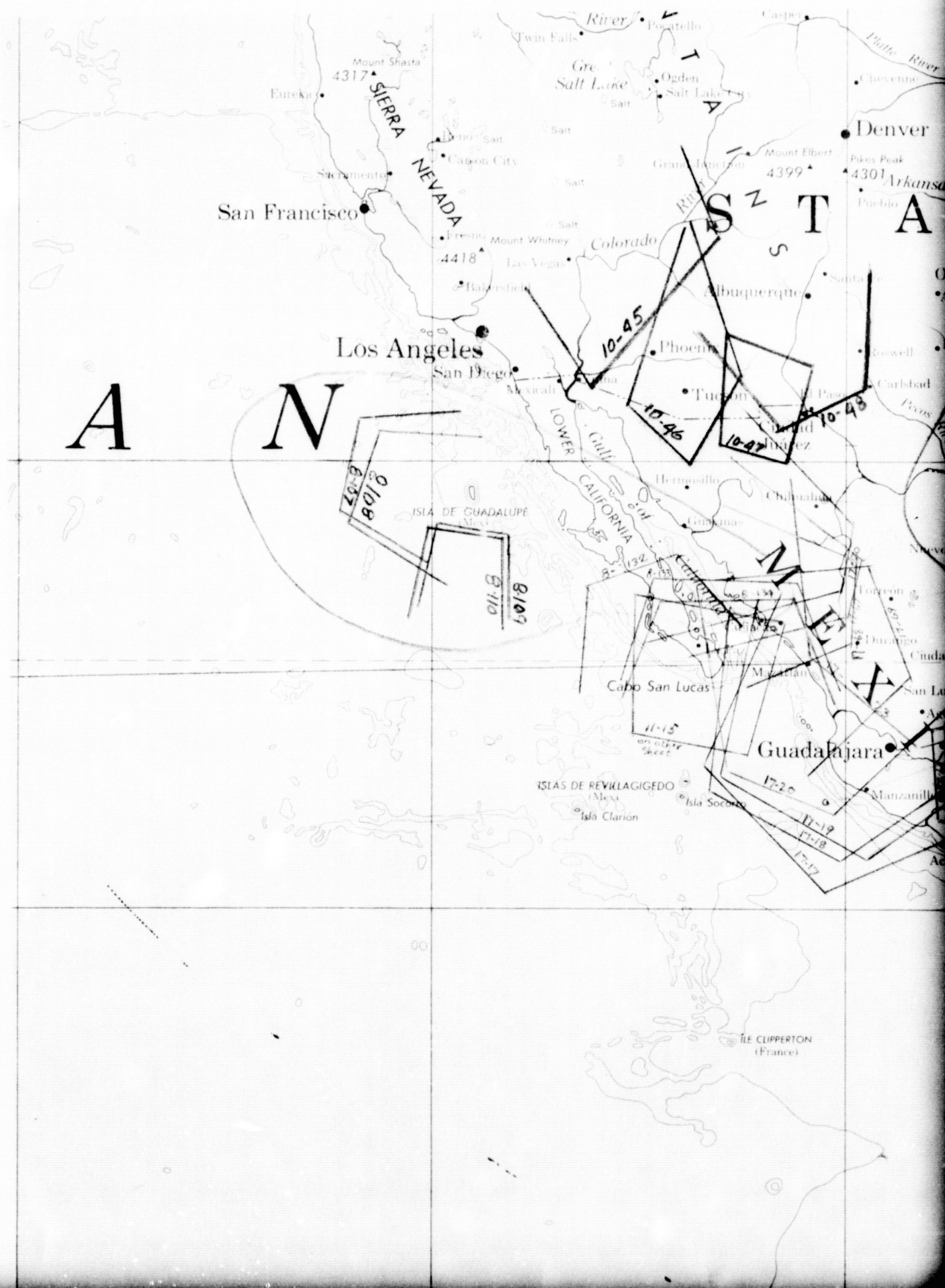
5

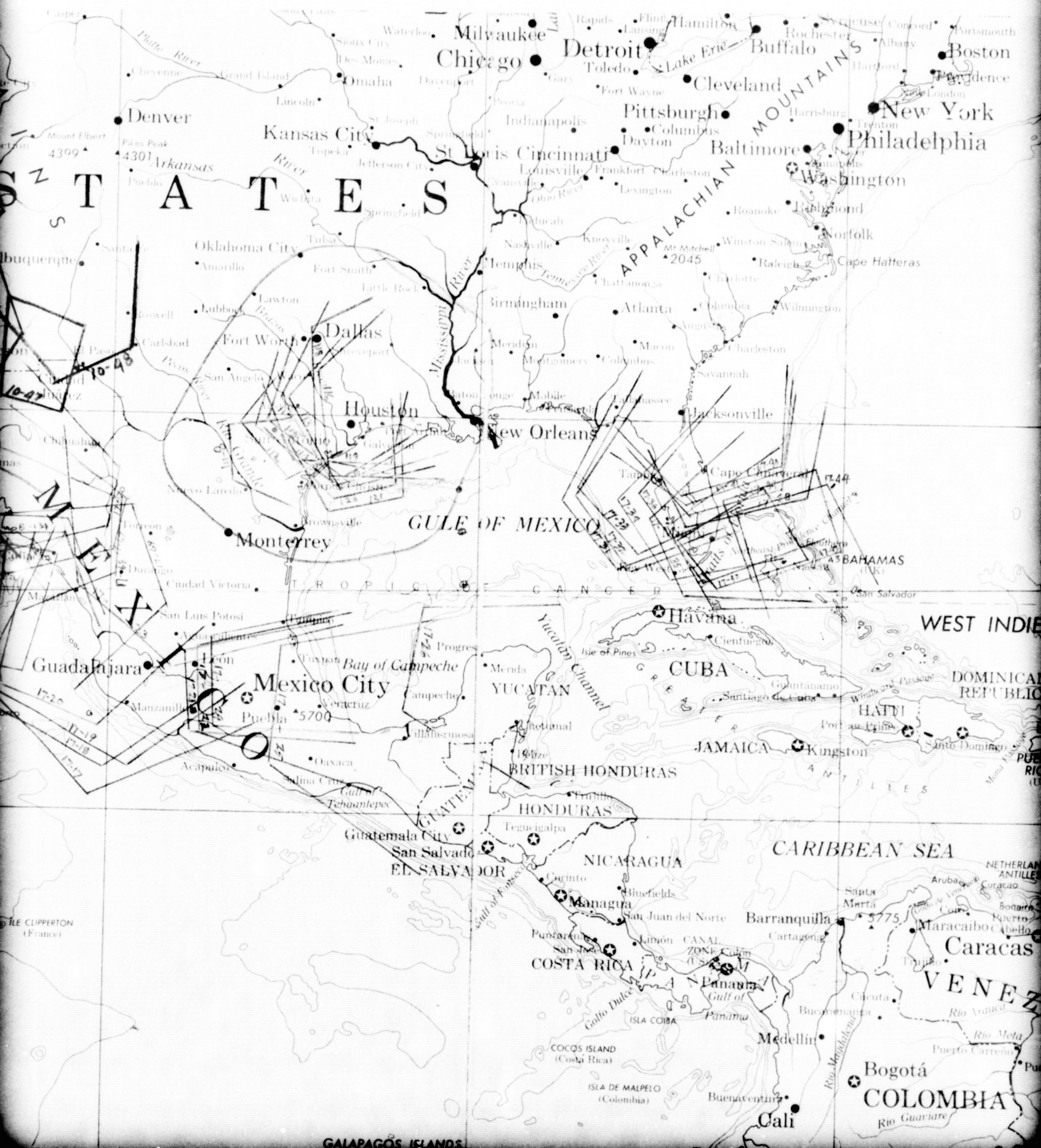


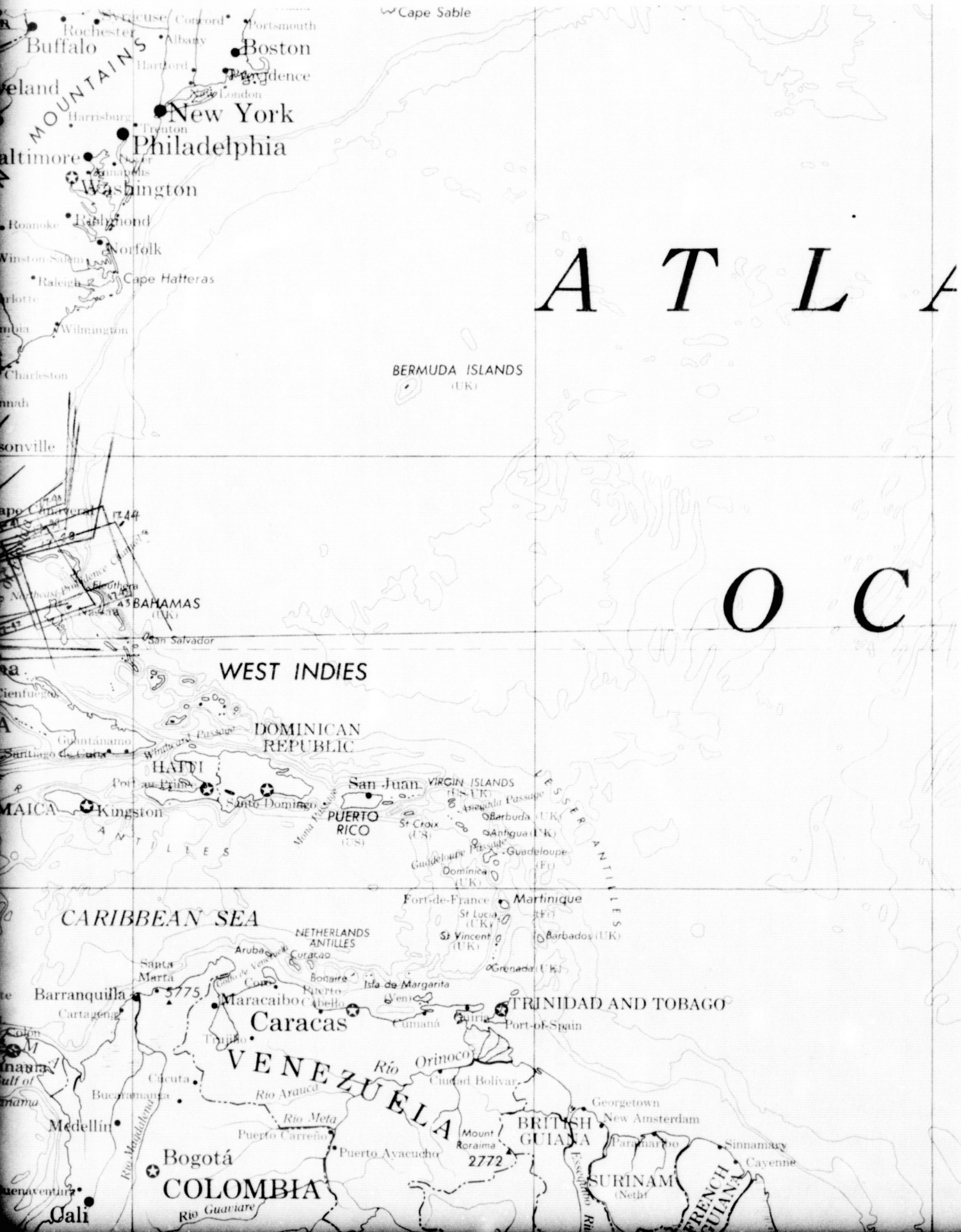
BRITISH GUIANA

6

FOLDOUT FRAME /









FOLDOUT FRAME

4



FIGURE 25

GEMINI 12

SECOND PART (MAGAZINES 10,
17, AND REMAINDER OF MAGAZINE 8)

FOLDOUT FRAME

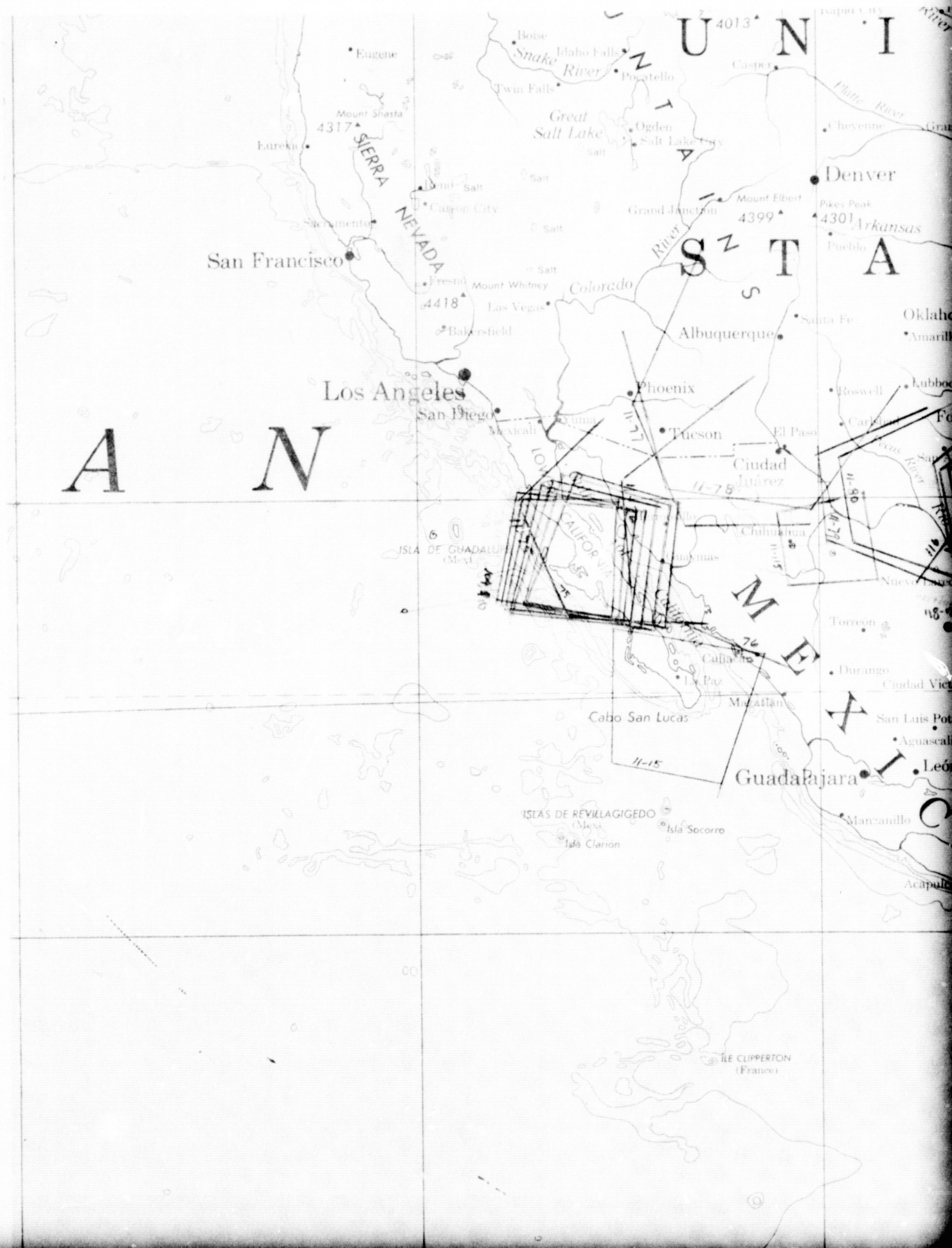
5

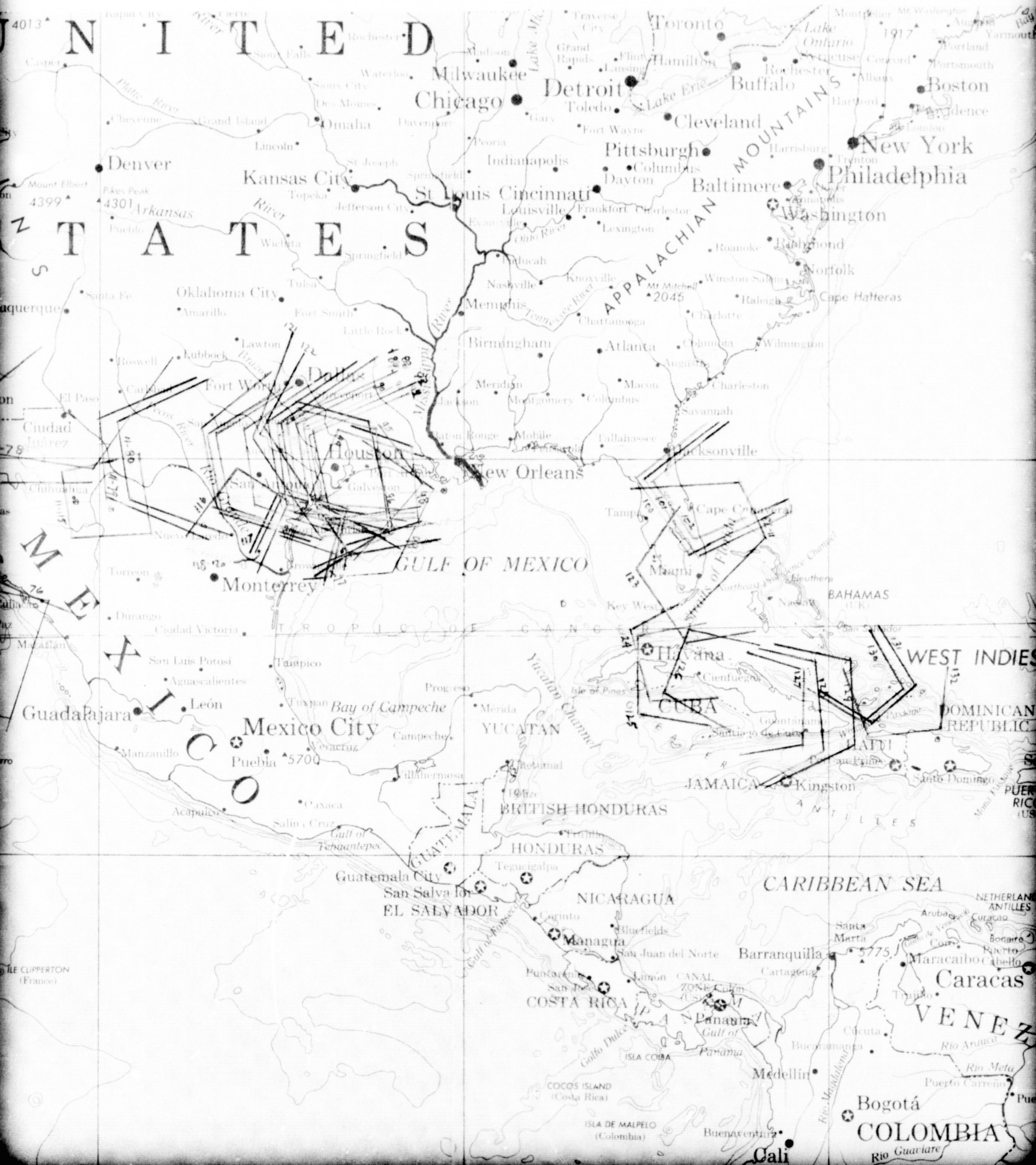


FOLDOUT FRAME

6

FOLDOUT FRAME /





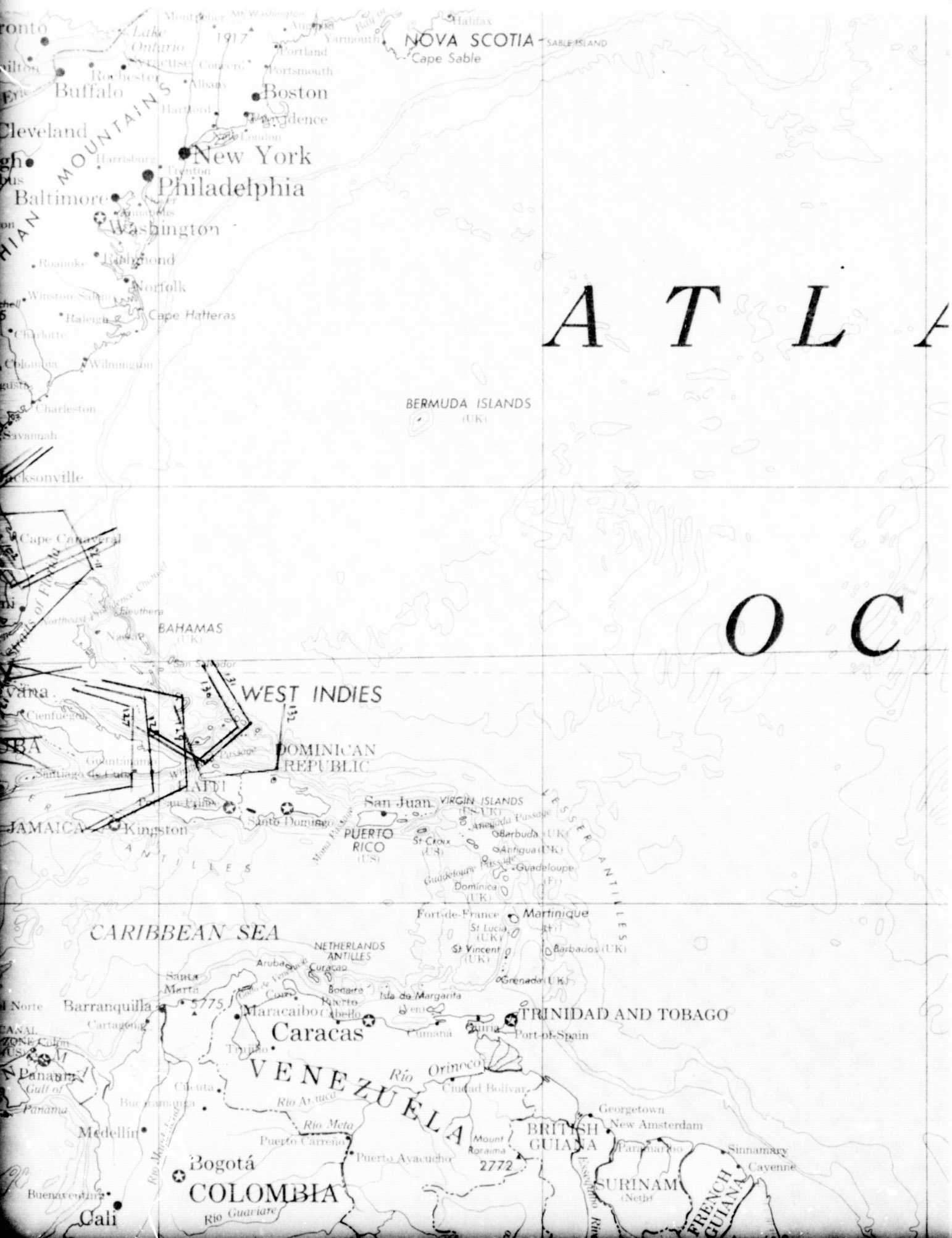


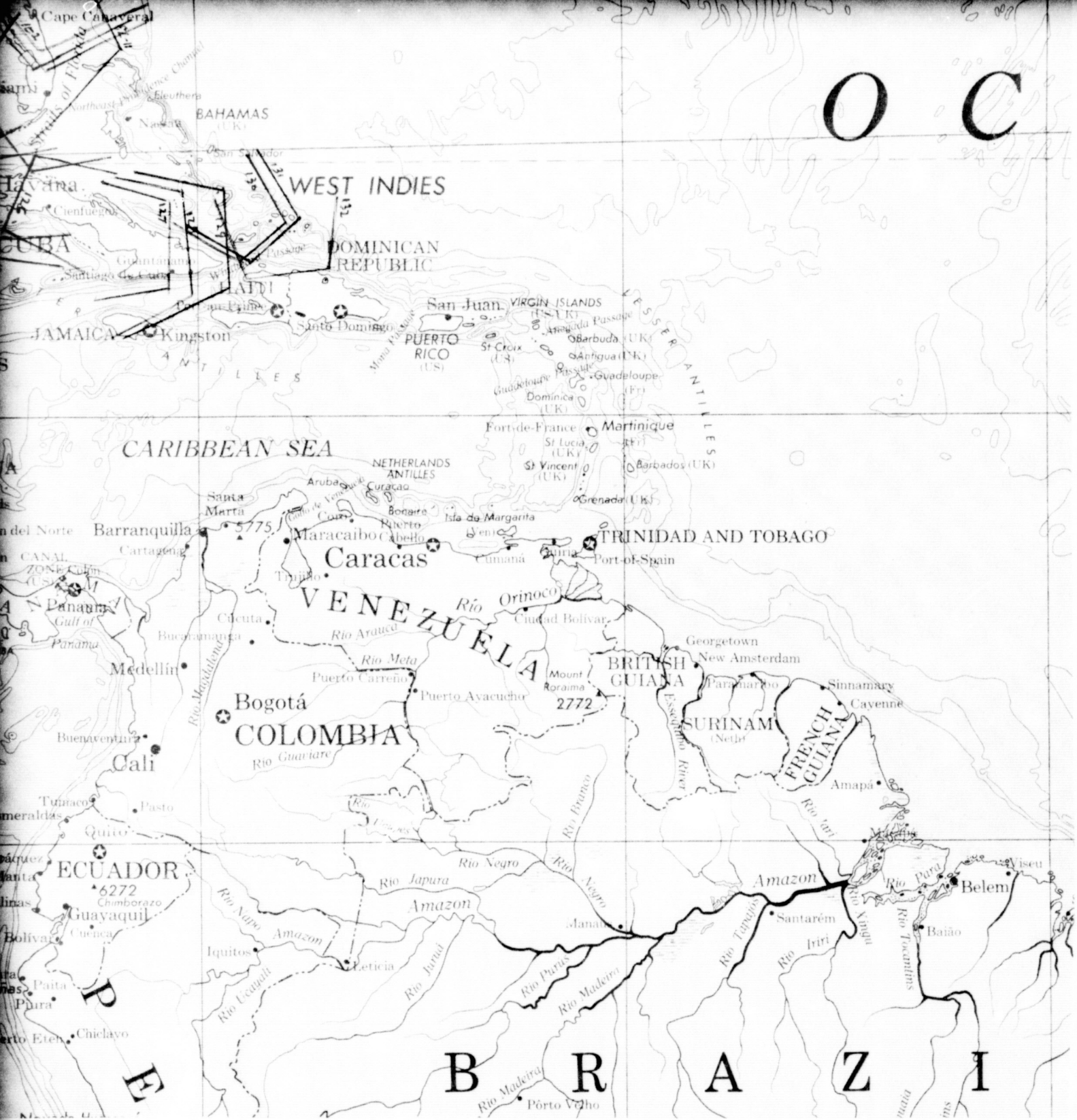


FIGURE 26

GEMINI 12

THIRD PART (MAGAZINE 11)

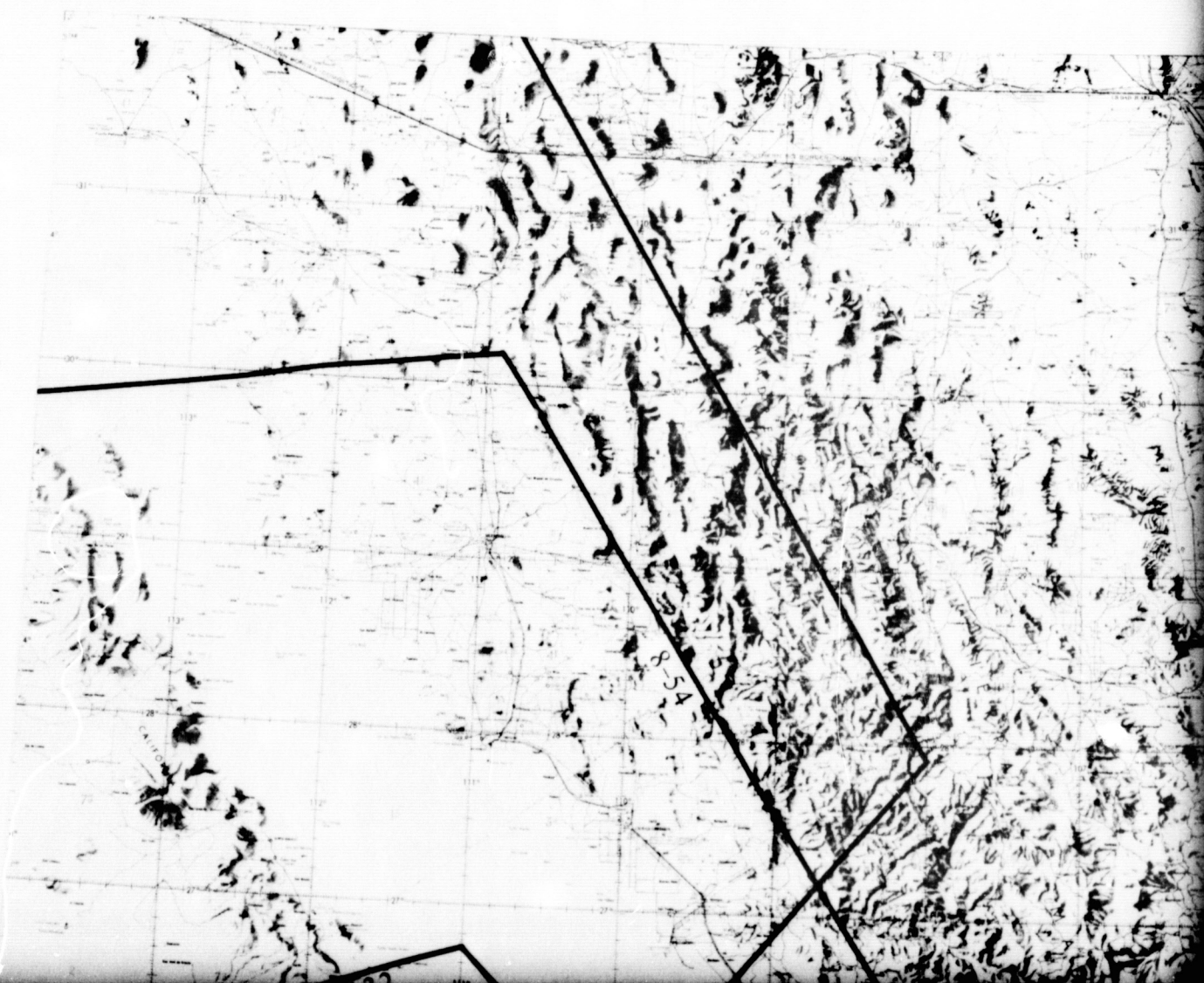
FOLDOUT FRAME S



FOLDOUT FRAME

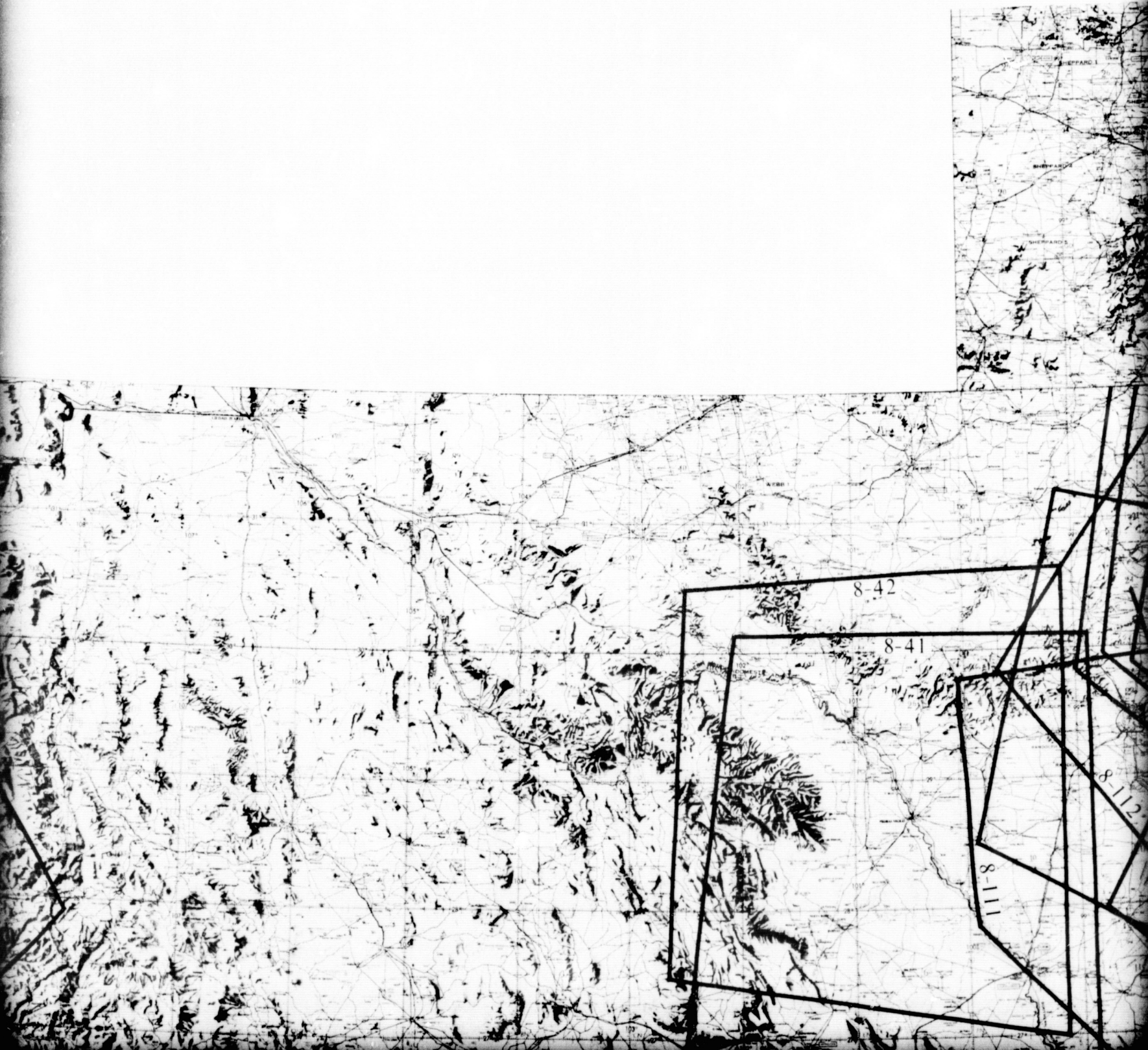
FOLDOUT FRAME

/



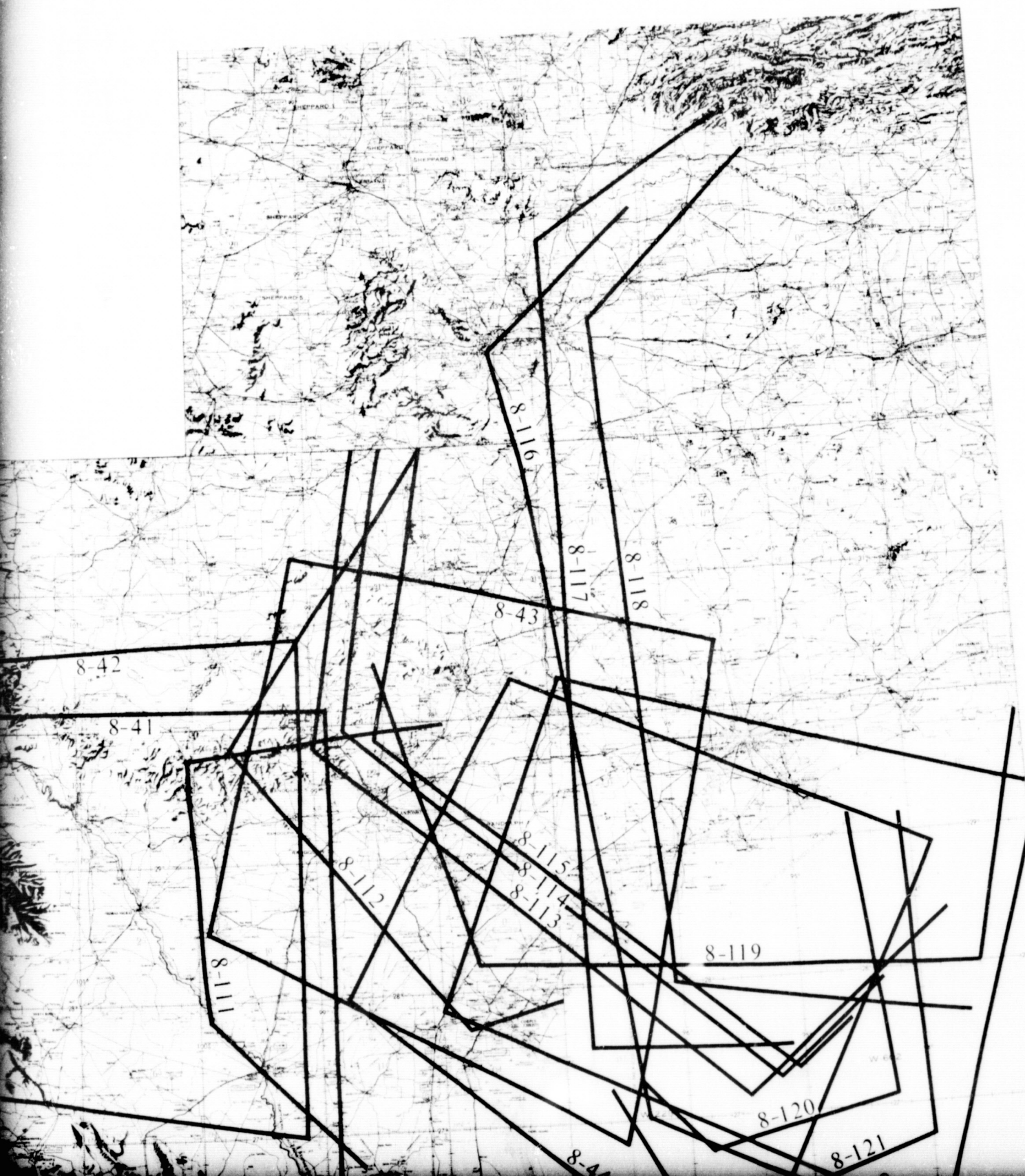
FOLDOUT FRAME

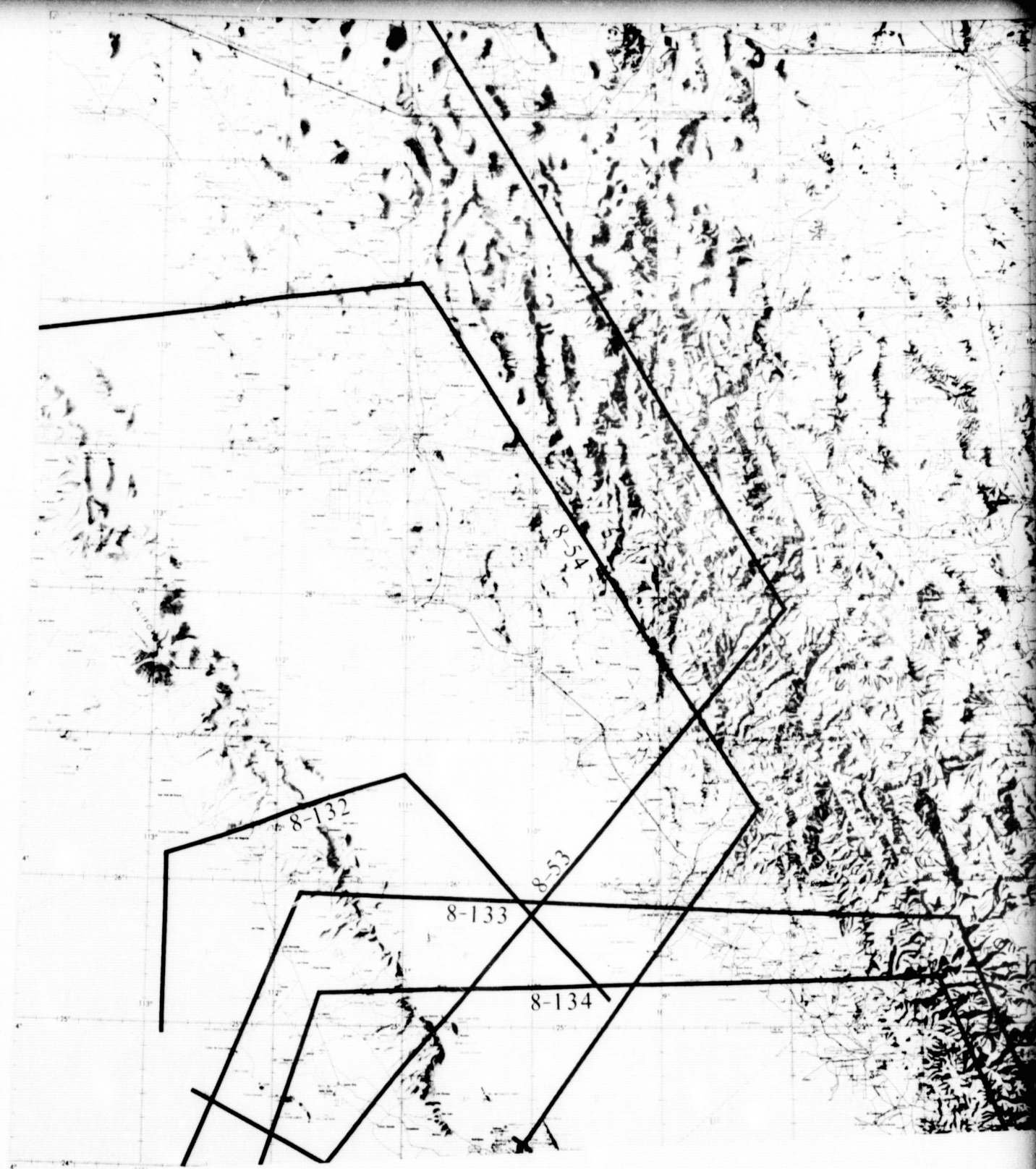
2



FOLDOUT FRAME

3





FOLDOUT FRAME

4

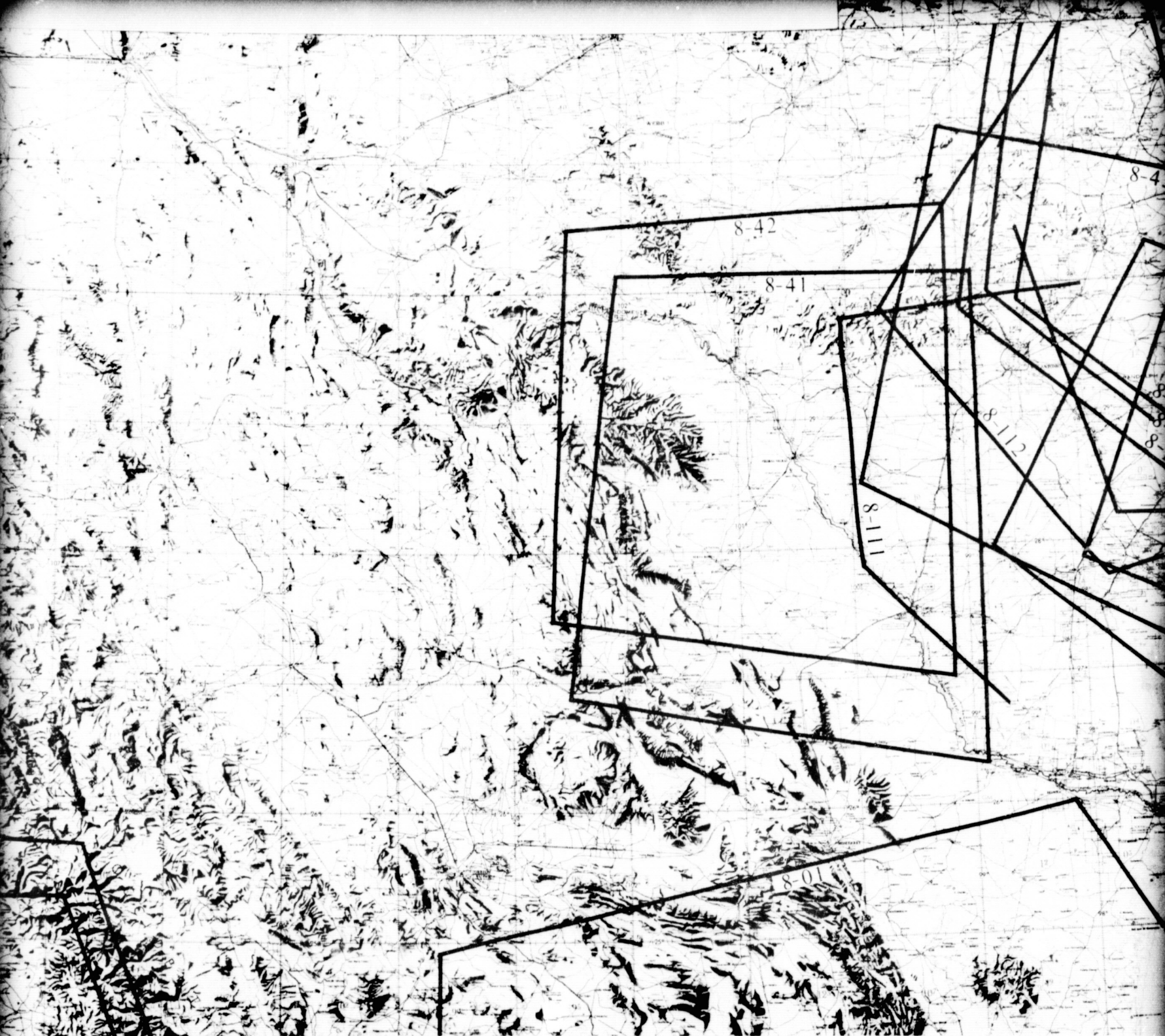


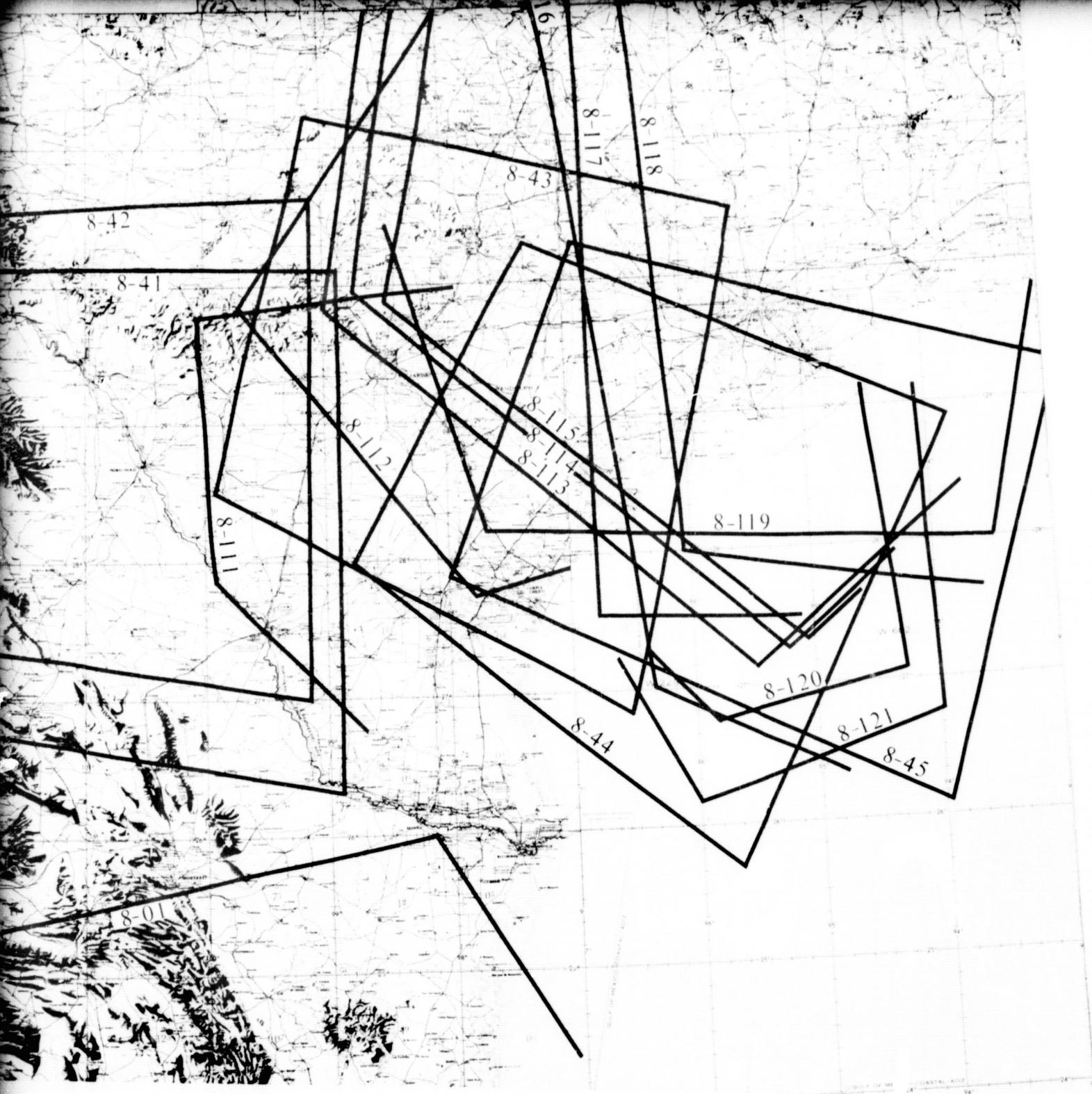
FIGURE 27

FOLDOUT FRAME

GEMINI 12

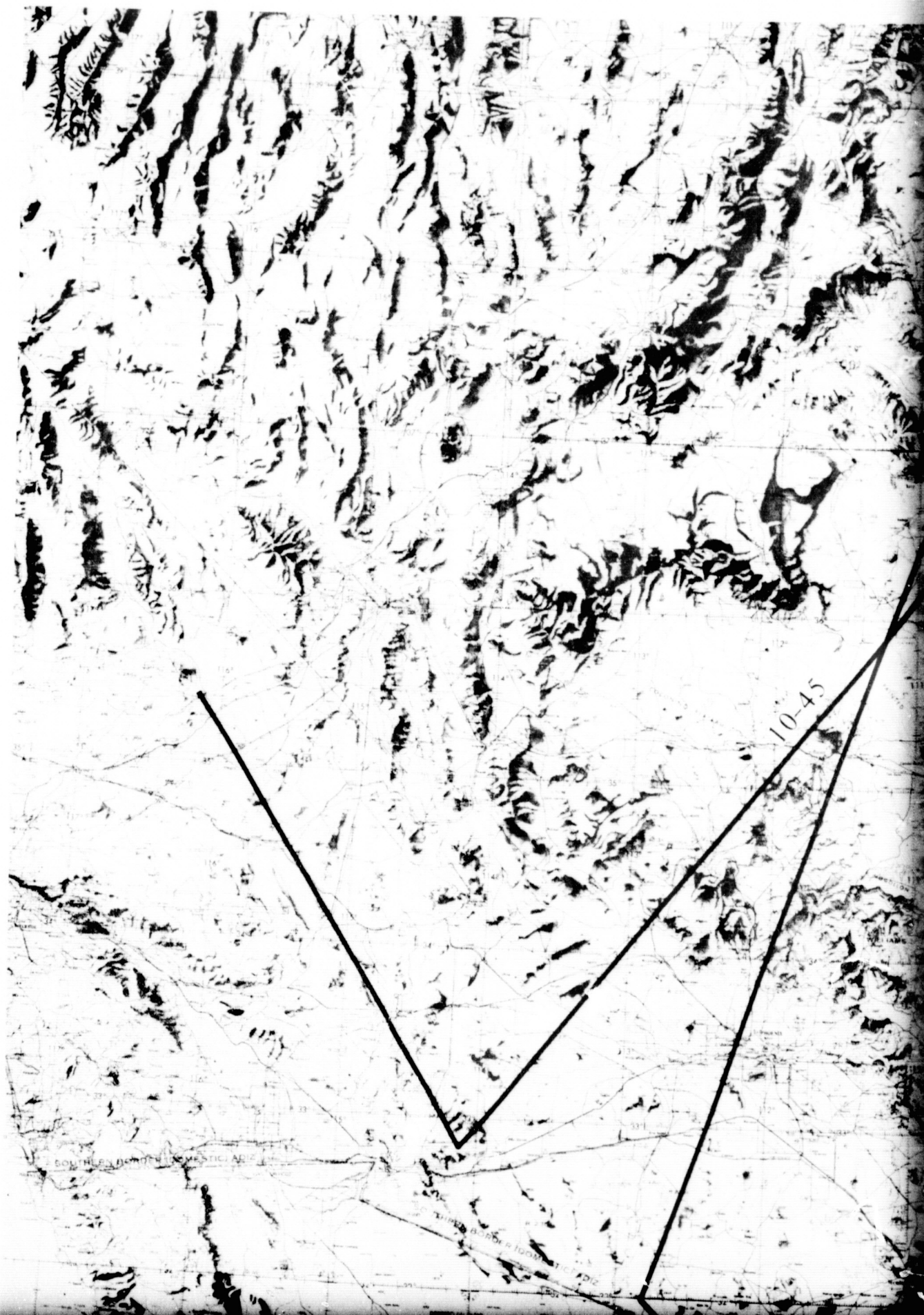
S

GULF COAST TO PACIFIC COAST OF NORTHERN
MEXICO AND SOUTHERN UNITED STATES
(FIRST PART)

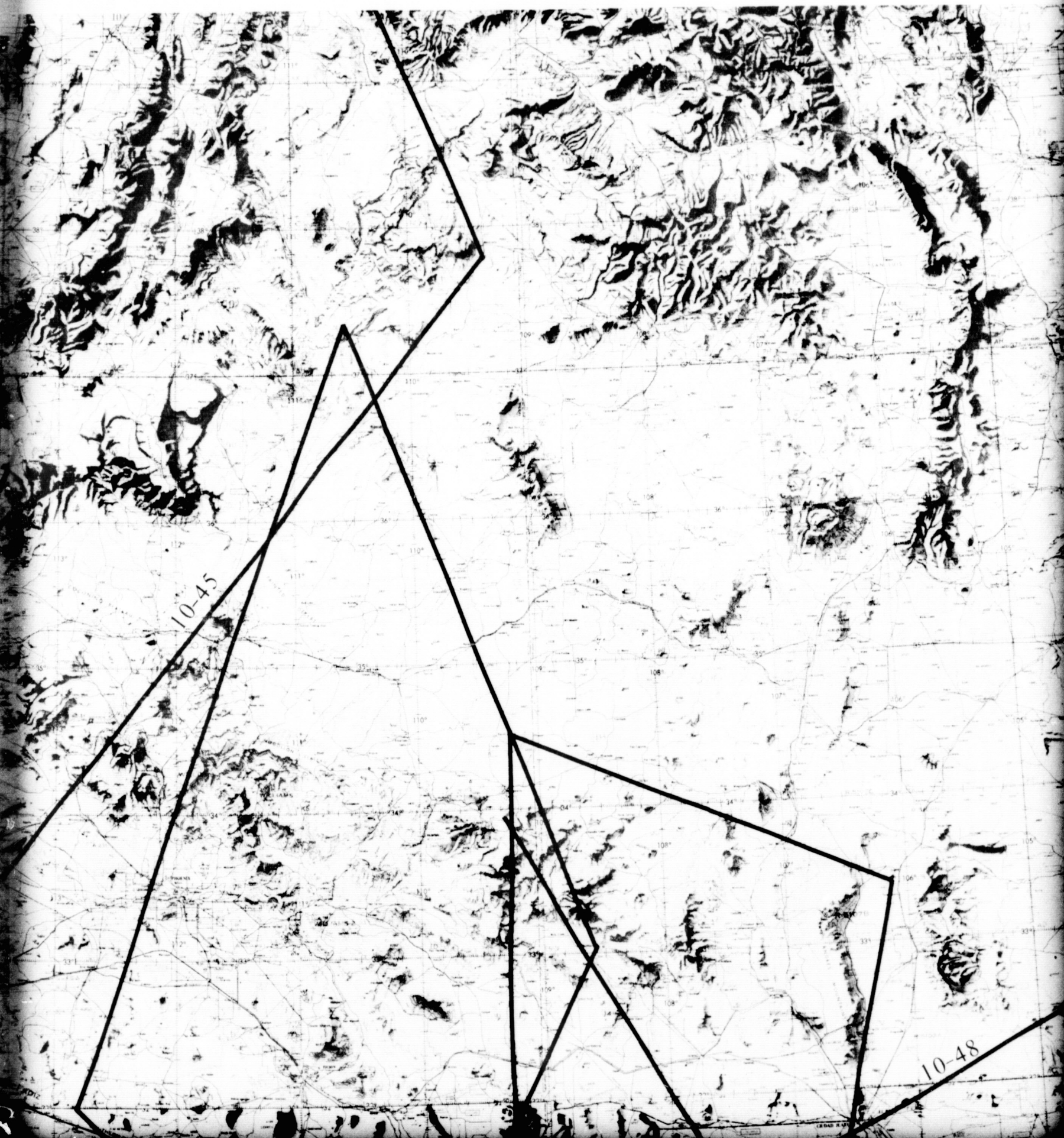


FOLDOUT FRAME
6

FOLDOUT FRAME /

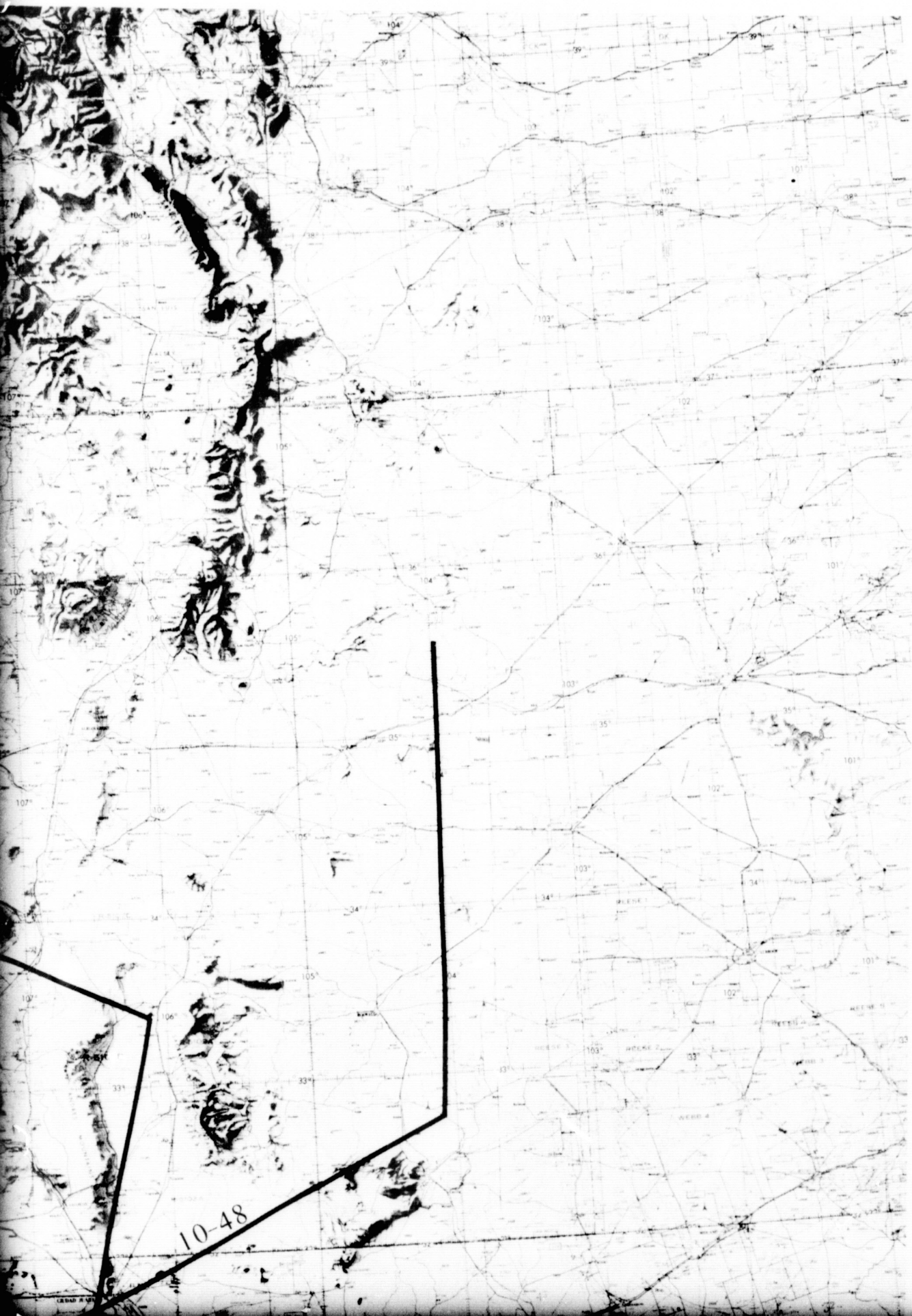


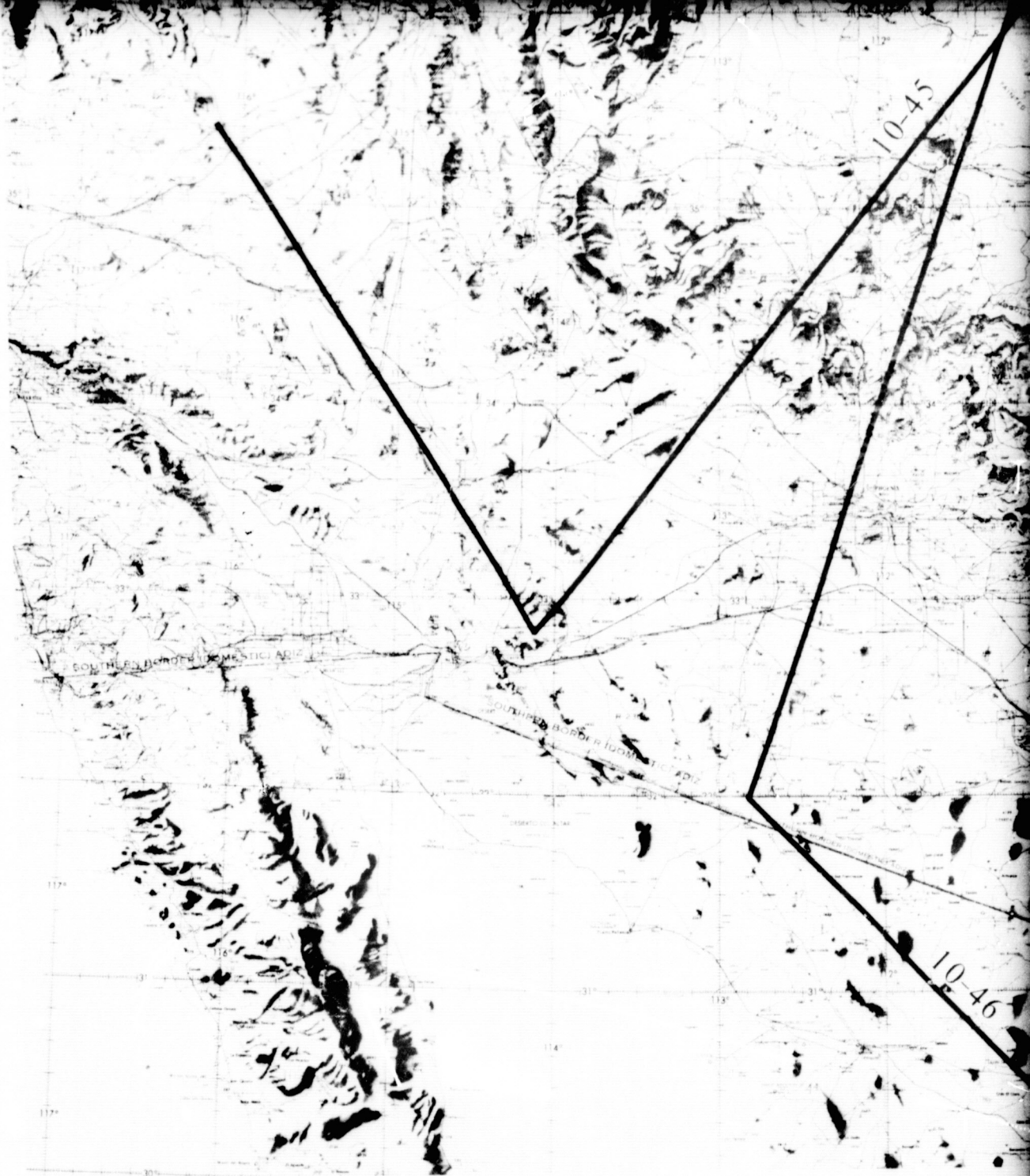
FOLDOUT FRAME 2



FOLDOUT FRAME

3





FOLDOUT FRAME

4



FIGURE 28

FOLDOUT FRAME

GEMINI 12

5

GULF COAST TO PACIFIC COAST OF NORTHERN
MEXICO AND SOUTHERN UNITED STATES
(SECOND PART)

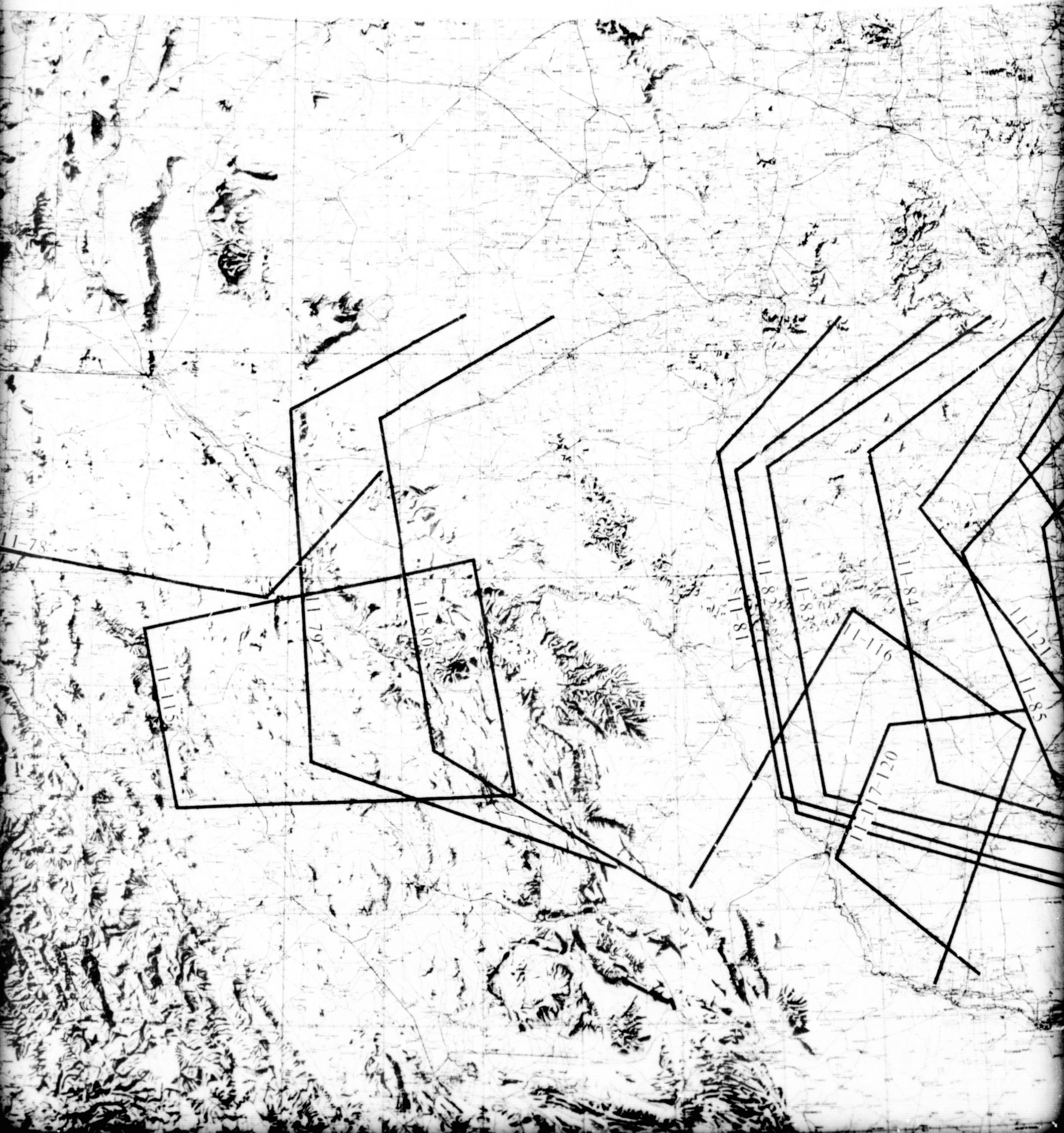


ME

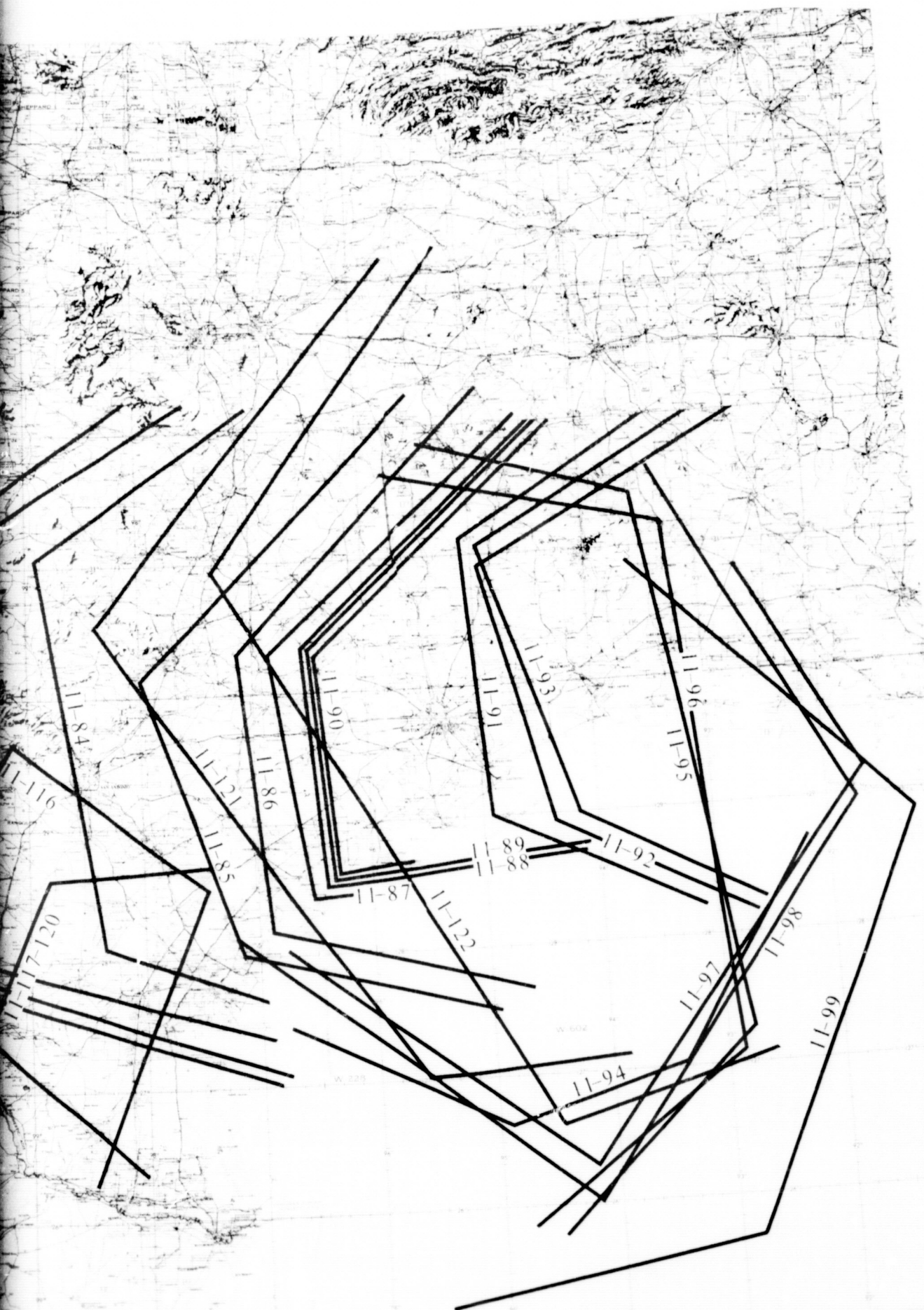
FOLDOUT FRAME
6

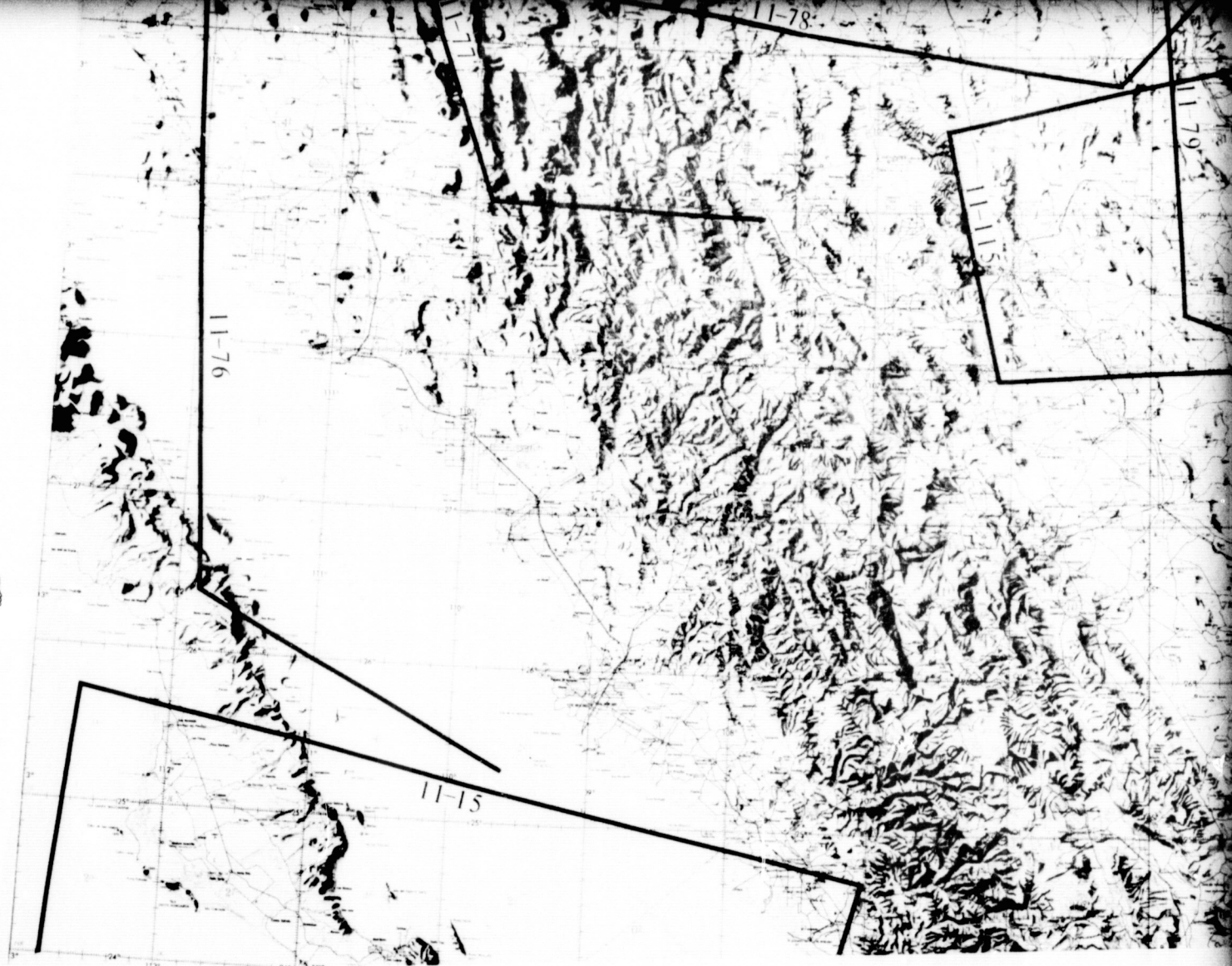
This is a high-contrast, black and white aerial photograph of a rugged, mountainous landscape. The terrain is characterized by numerous peaks, valleys, and ridges, creating a complex pattern of light and dark areas. A grid of thin, light-colored lines is overlaid on the entire image, likely representing a coordinate system or map grid. Several thick, black lines are drawn across the image, delineating specific regions or boundaries. These lines are irregular and follow the contours of the terrain in some places. Three labels are visible near these boundaries: '11-76' is located on the left side, '11-78' is in the center-right, and '11-79' is on the right side. The overall appearance is that of a technical or military map or reconnaissance photograph.

FOLDOUT FRAME 2



FOLDOUT FRAME
3





FOLDOUT FRAME 4

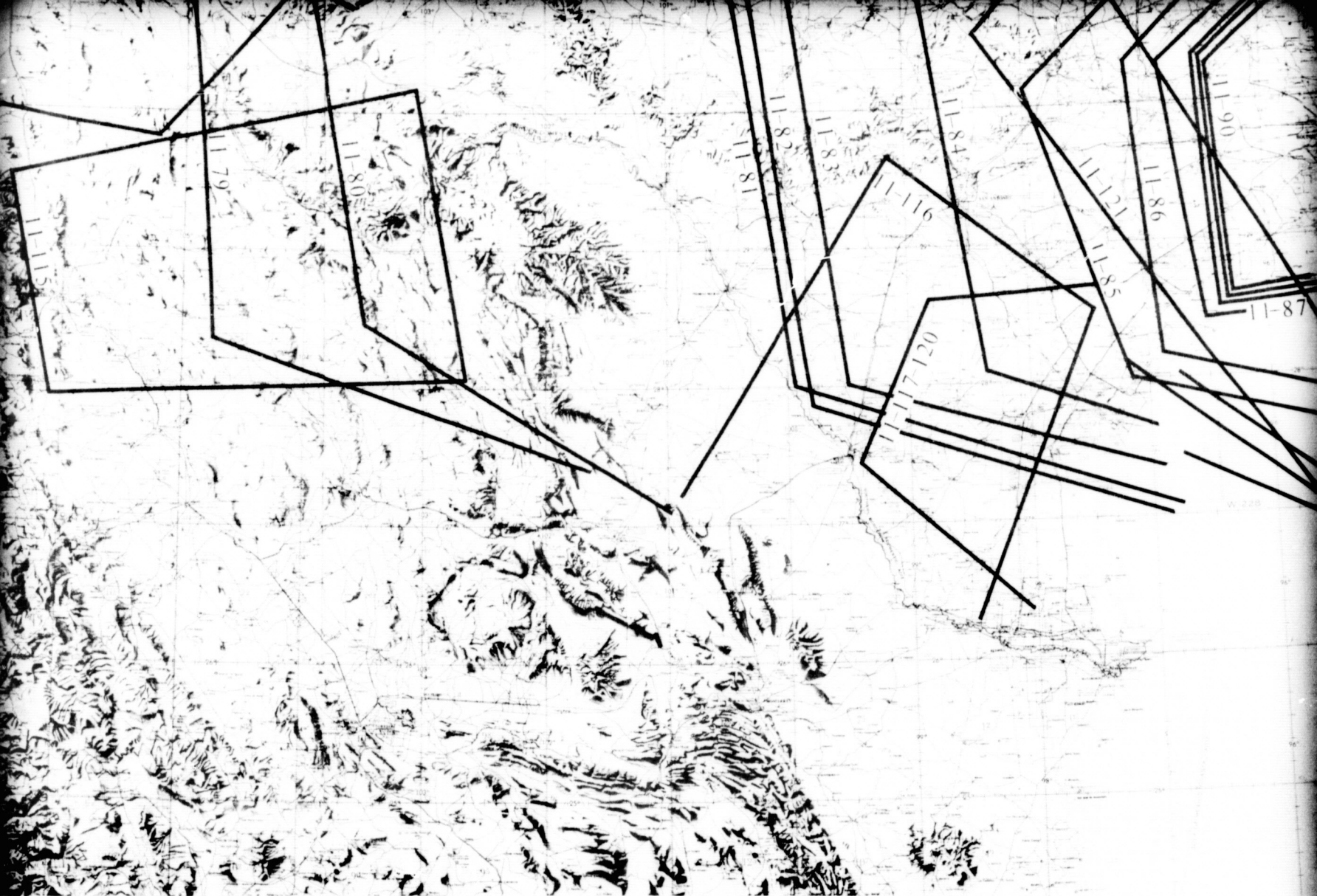
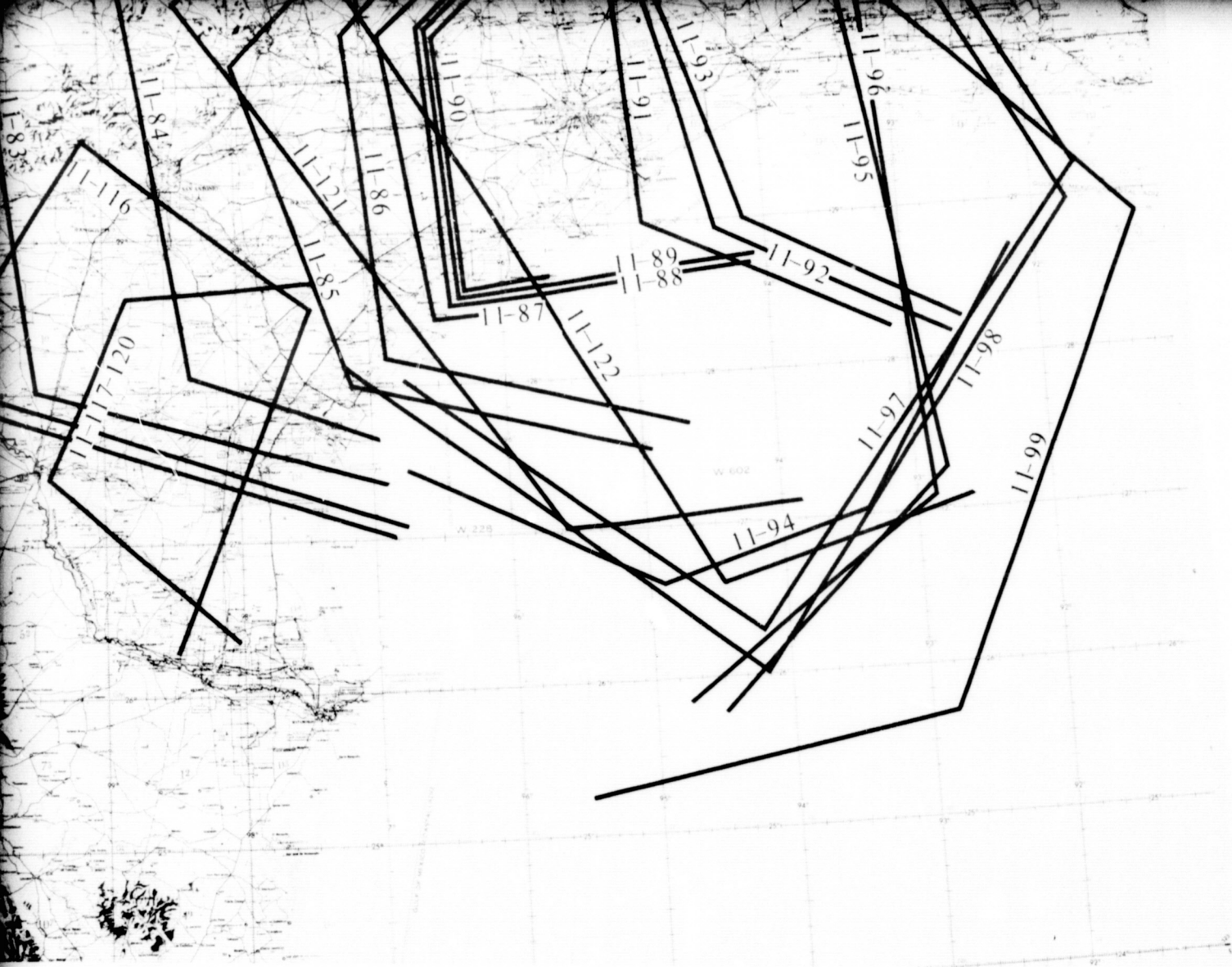


FIGURE 29

GEMINI 12

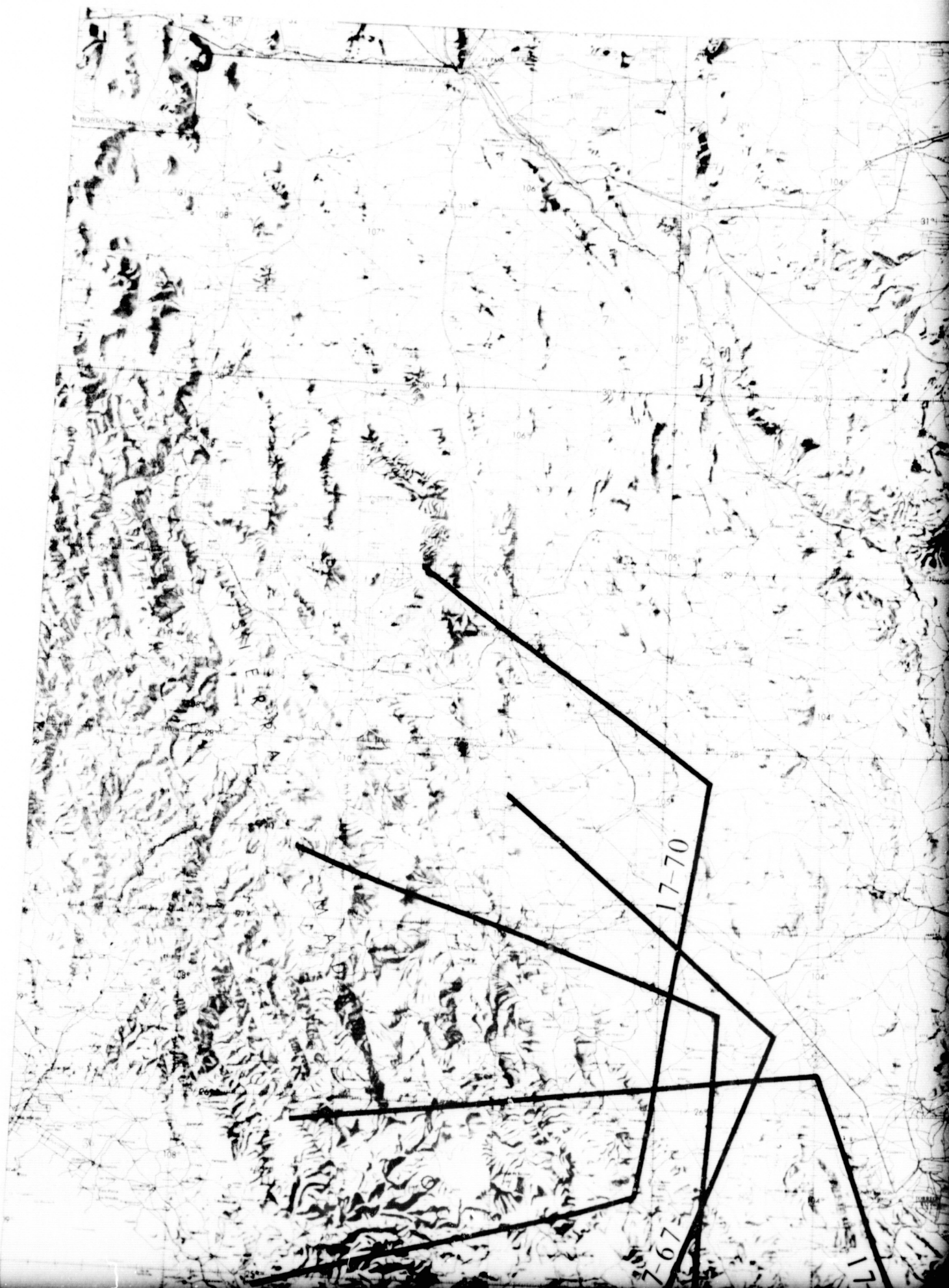
GULF COAST TO PACIFIC COAST OF NORTHERN
MEXICO AND SOUTHERN UNITED STATES
(THIRD PART)

FOLDOUT FRAME 5



FOLDOUT FRAME 6

FOLDOUT FRAME /



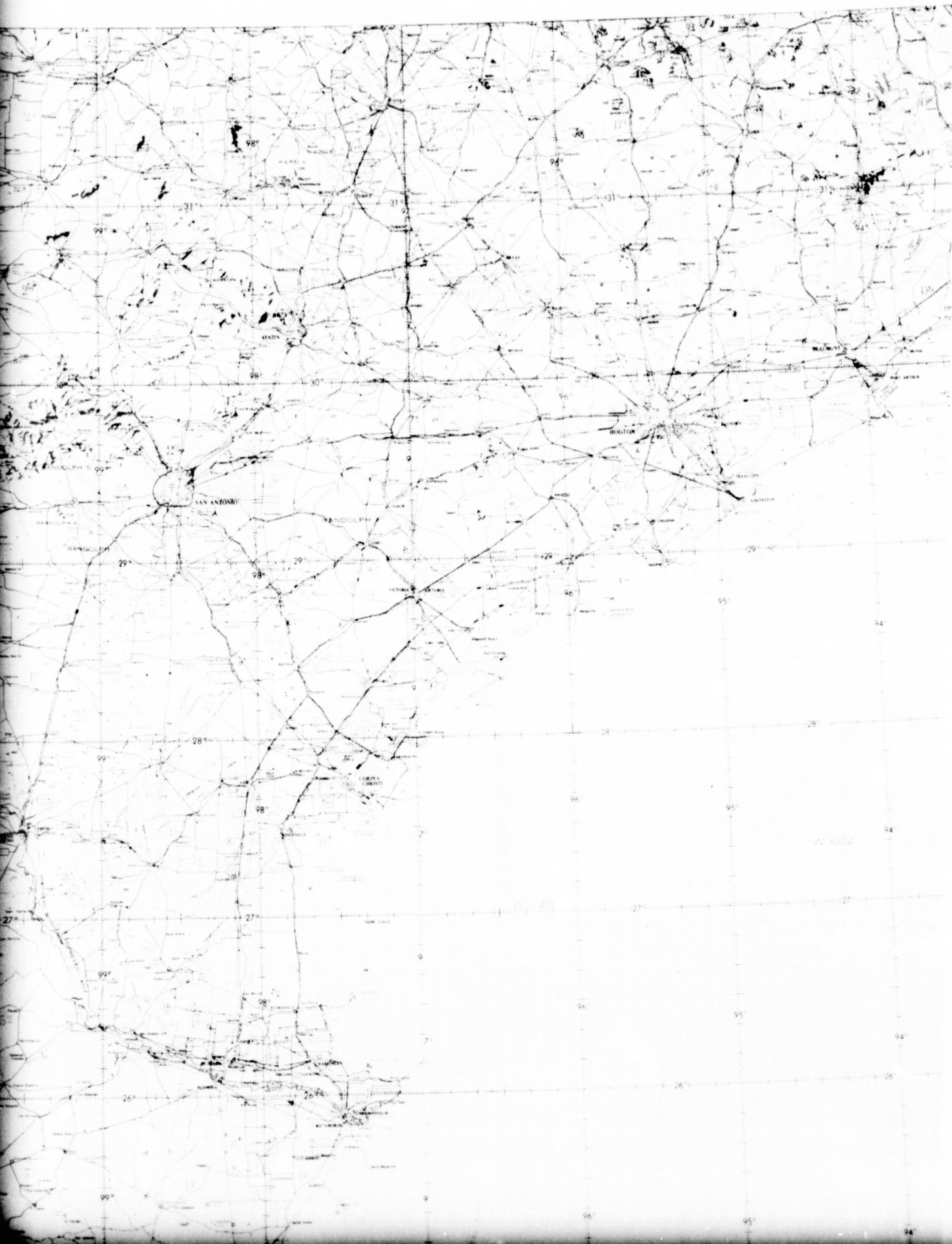
FOLDOUT FRAME 2



17-70

67

FOLDOUT FRAME
3



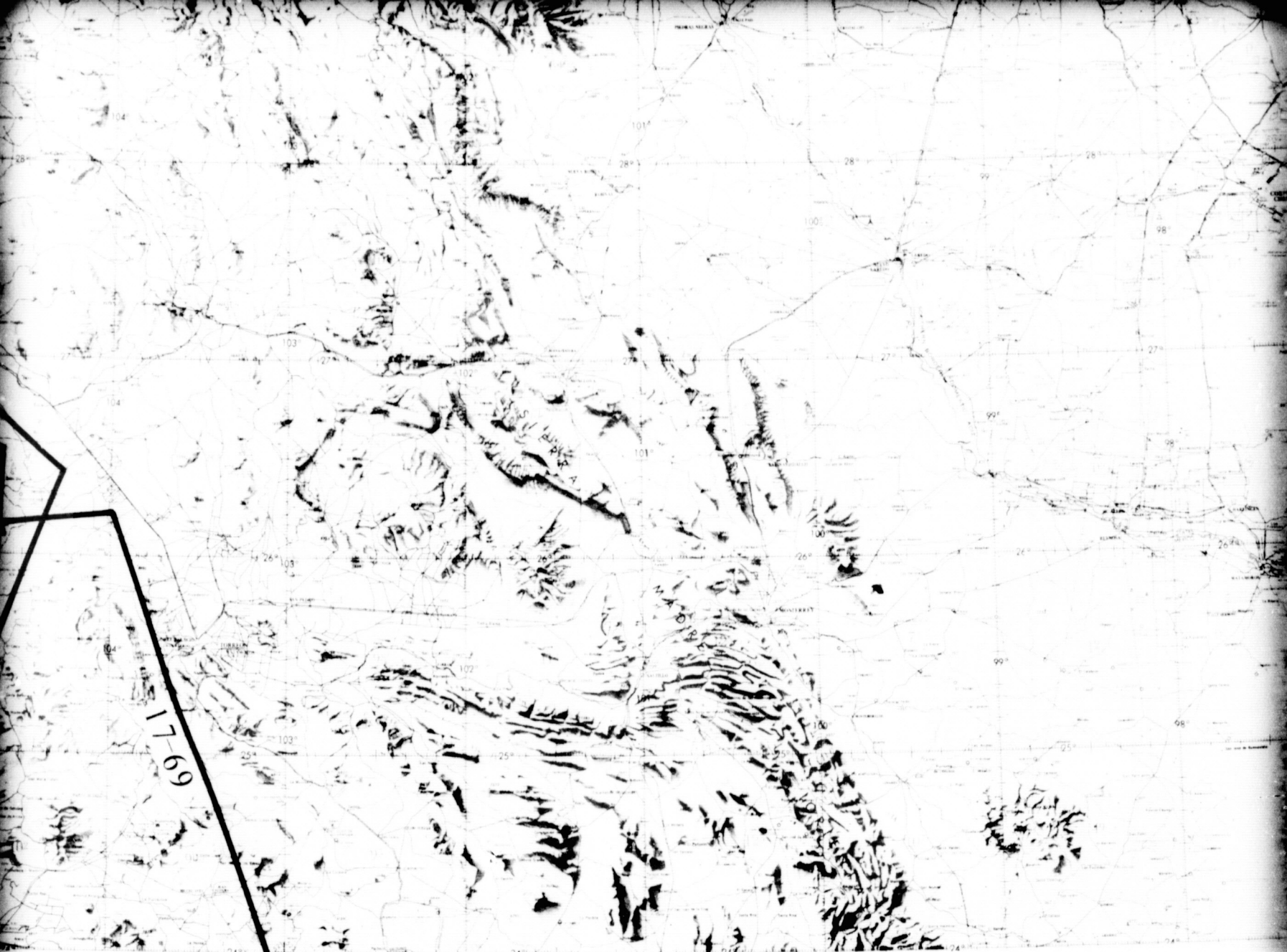
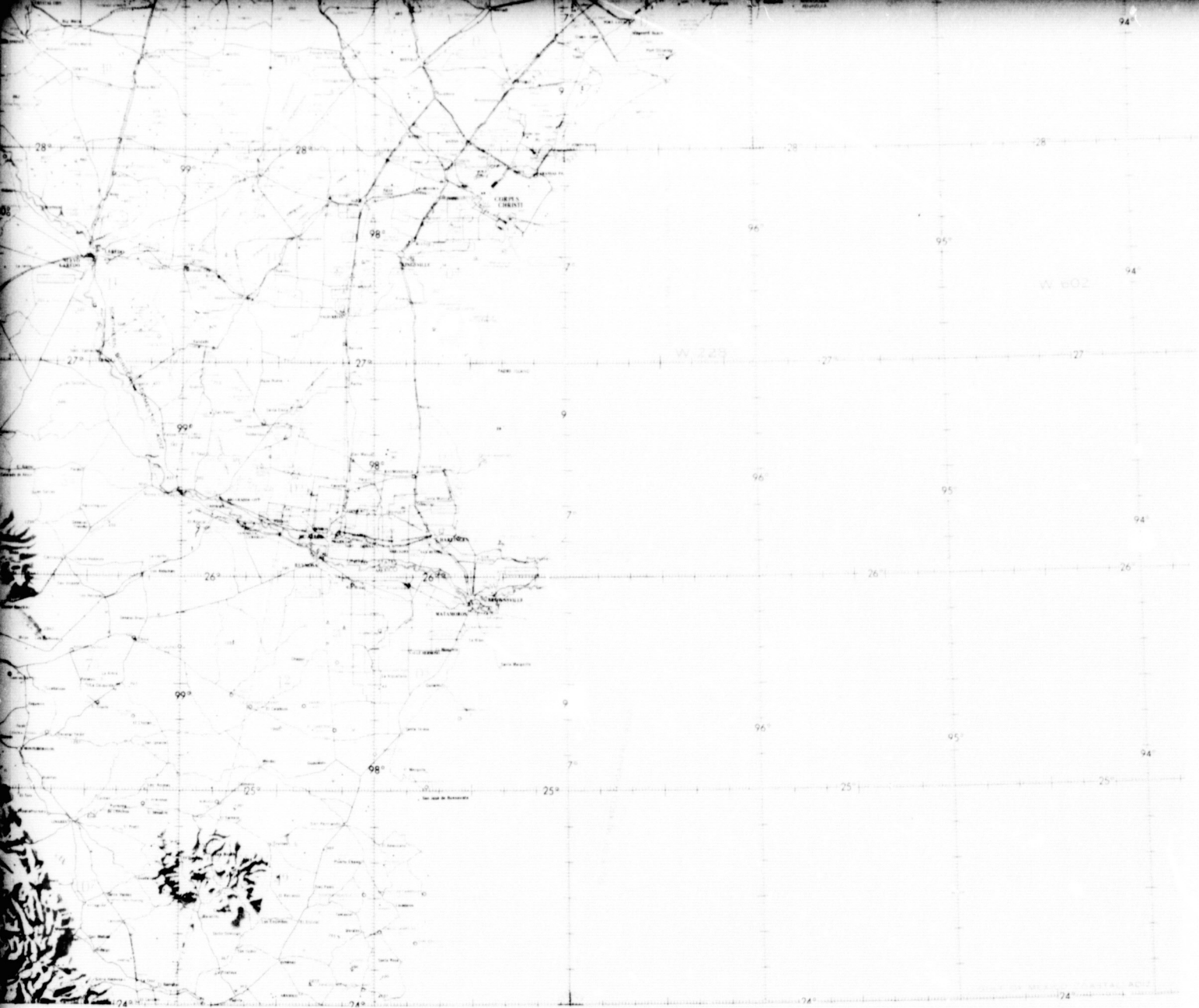


FIGURE 30

GEMINI 12

GULF COAST TO PACIFIC COAST OF NORTHERN
MEXICO AND SOUTHERN UNITED STATES
(FOURTH PART)

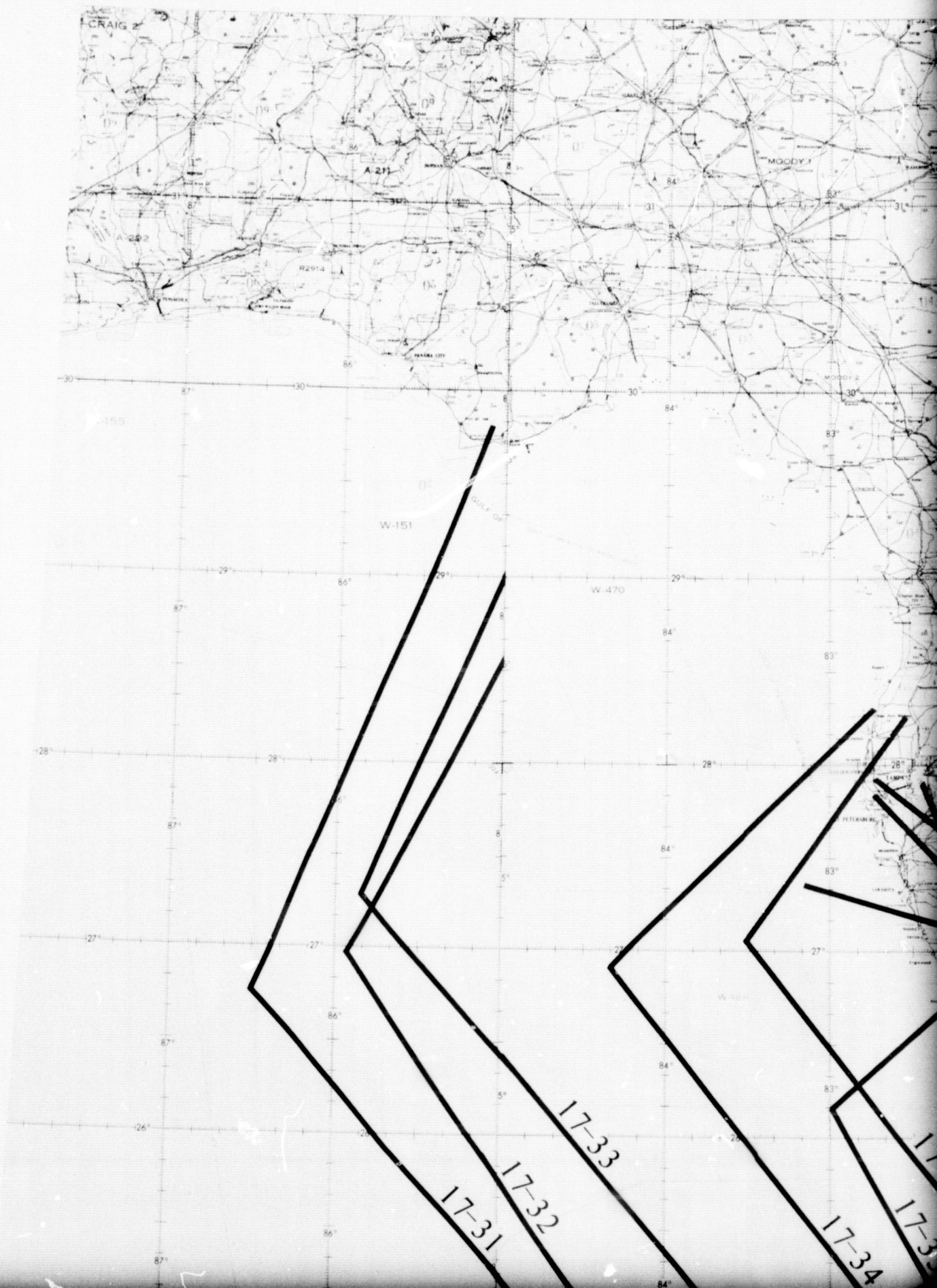
FOLDOUT FRAME 5



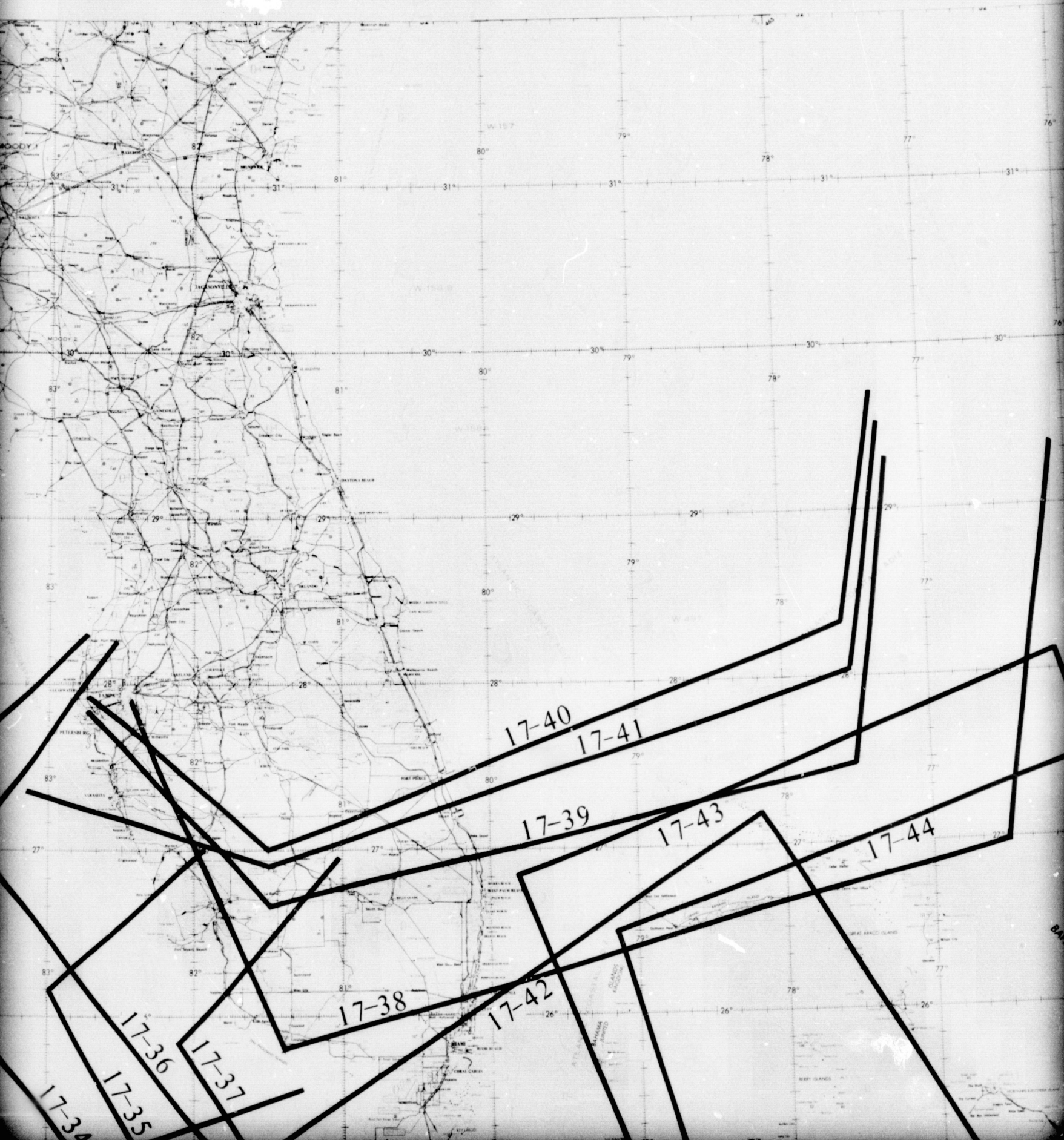
FOLDOUT FRAME

6

C-3 FOLDOUT FRAME

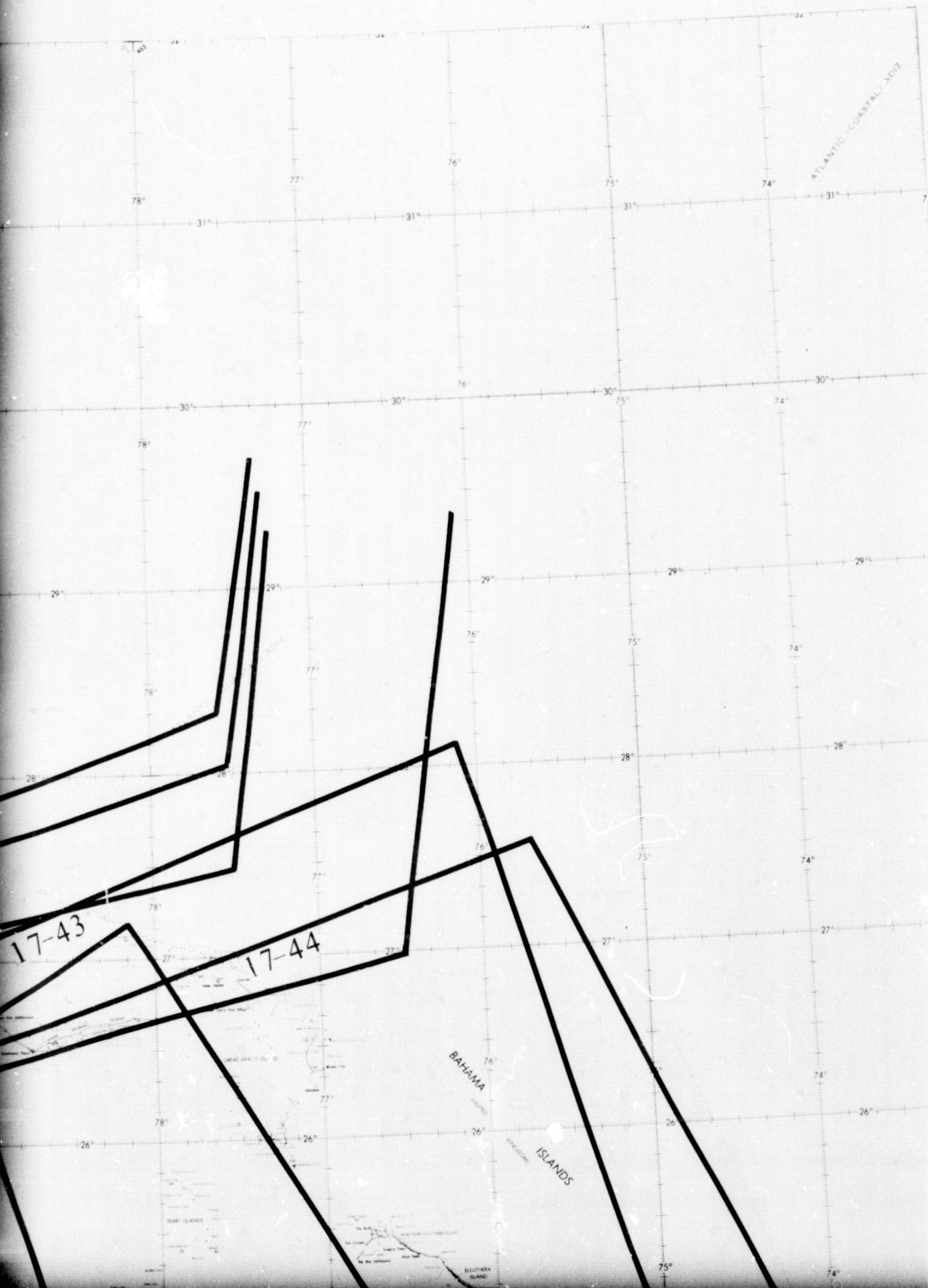


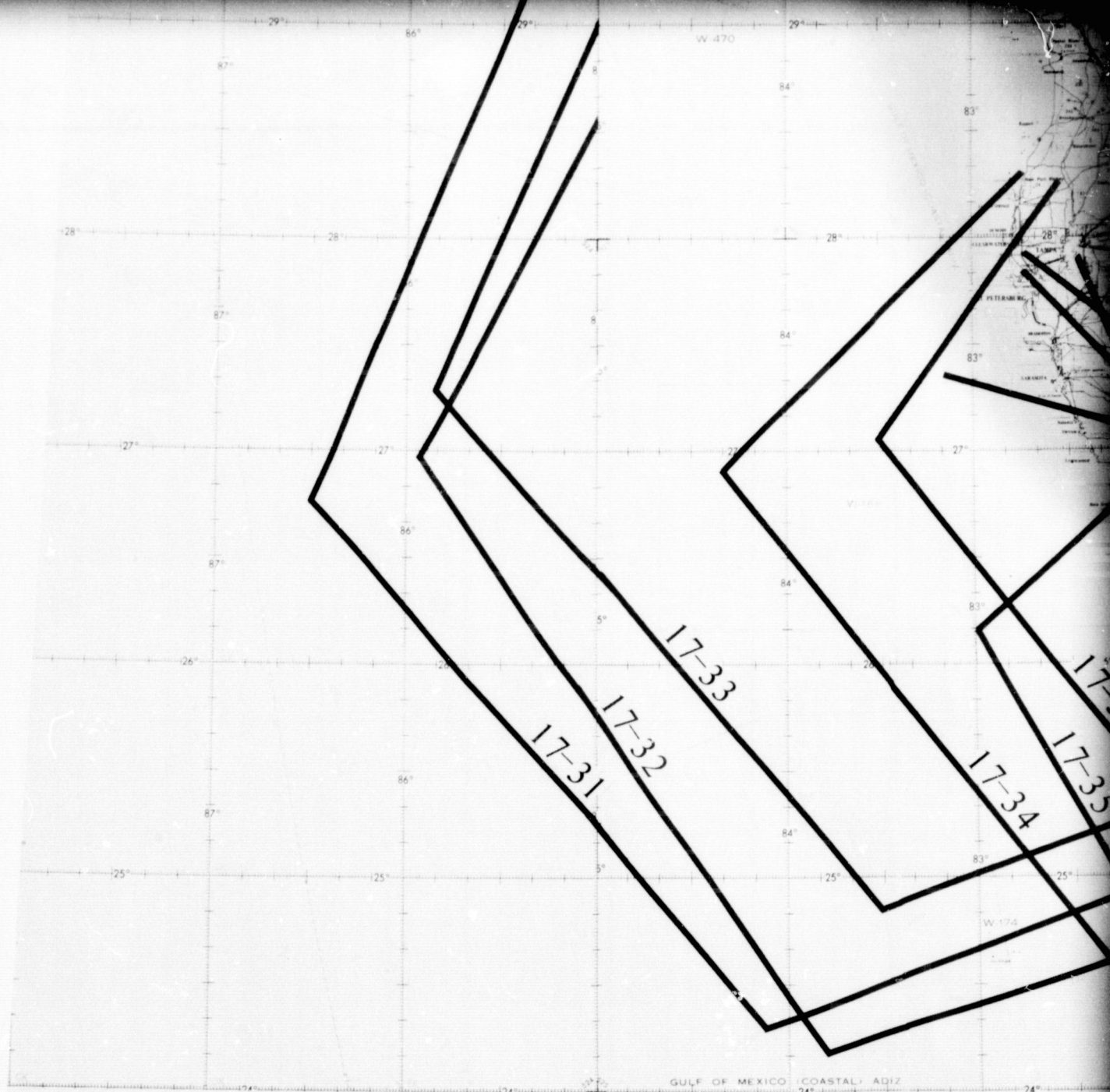
FOLDOUT FRAME 2



FOLDOUT FRAME

3





EOLDOUT FRAME

4

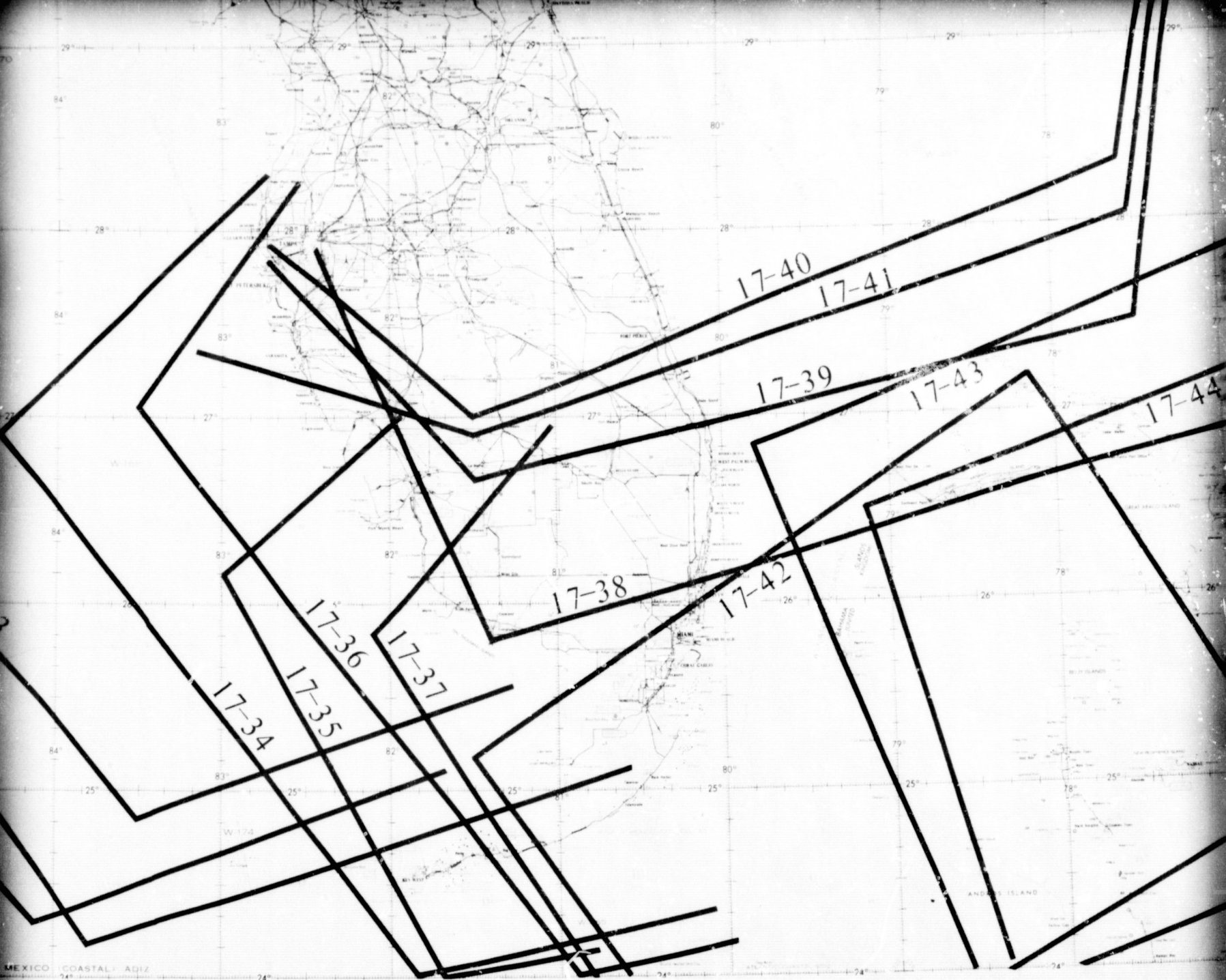


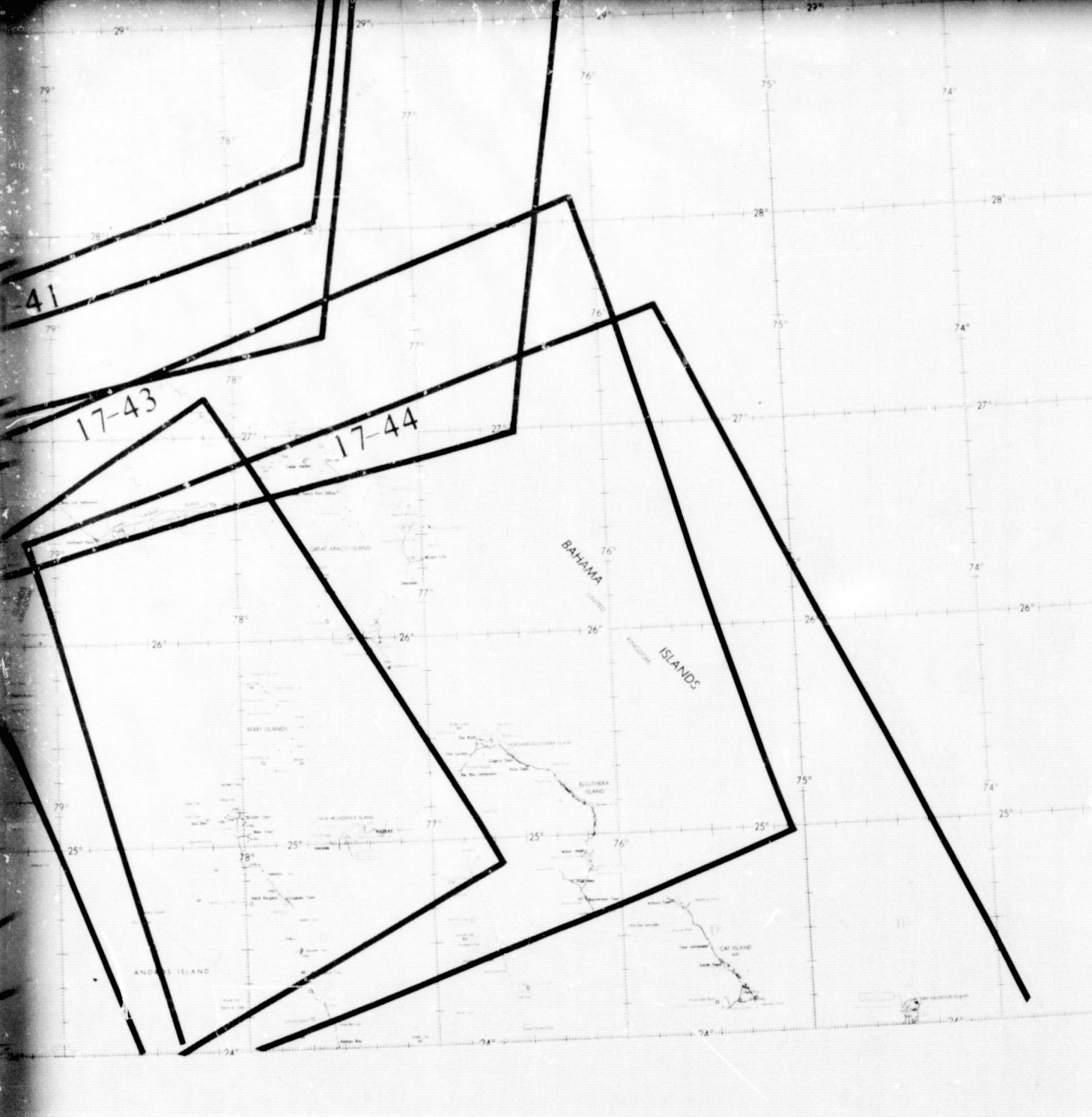
FIGURE 31

GEMINI 12

FLORIDA AND ADJACENT AREAS (FIRST PART)

FOLDOUT FRAME

5

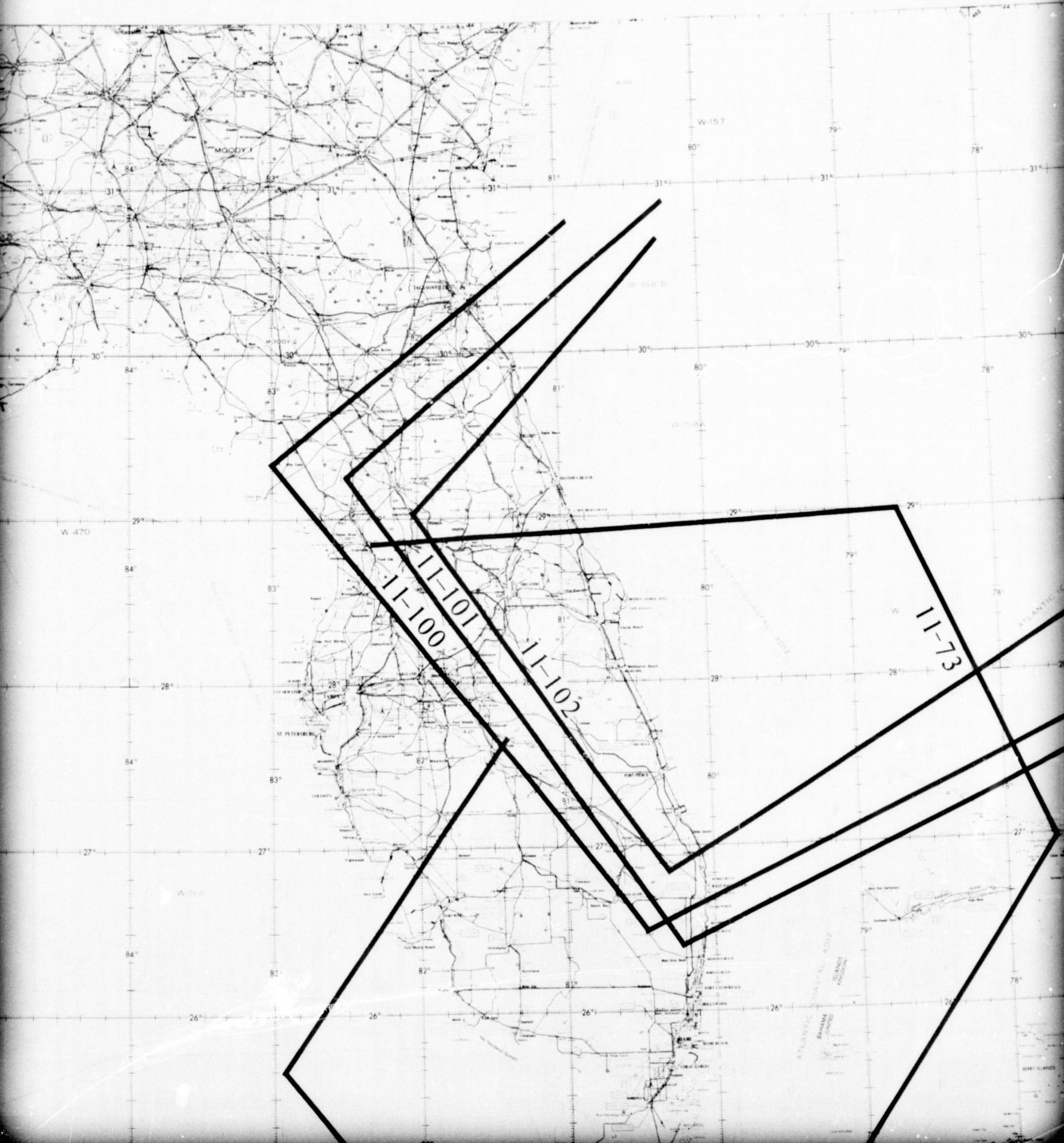


FOLDOUT FRAME

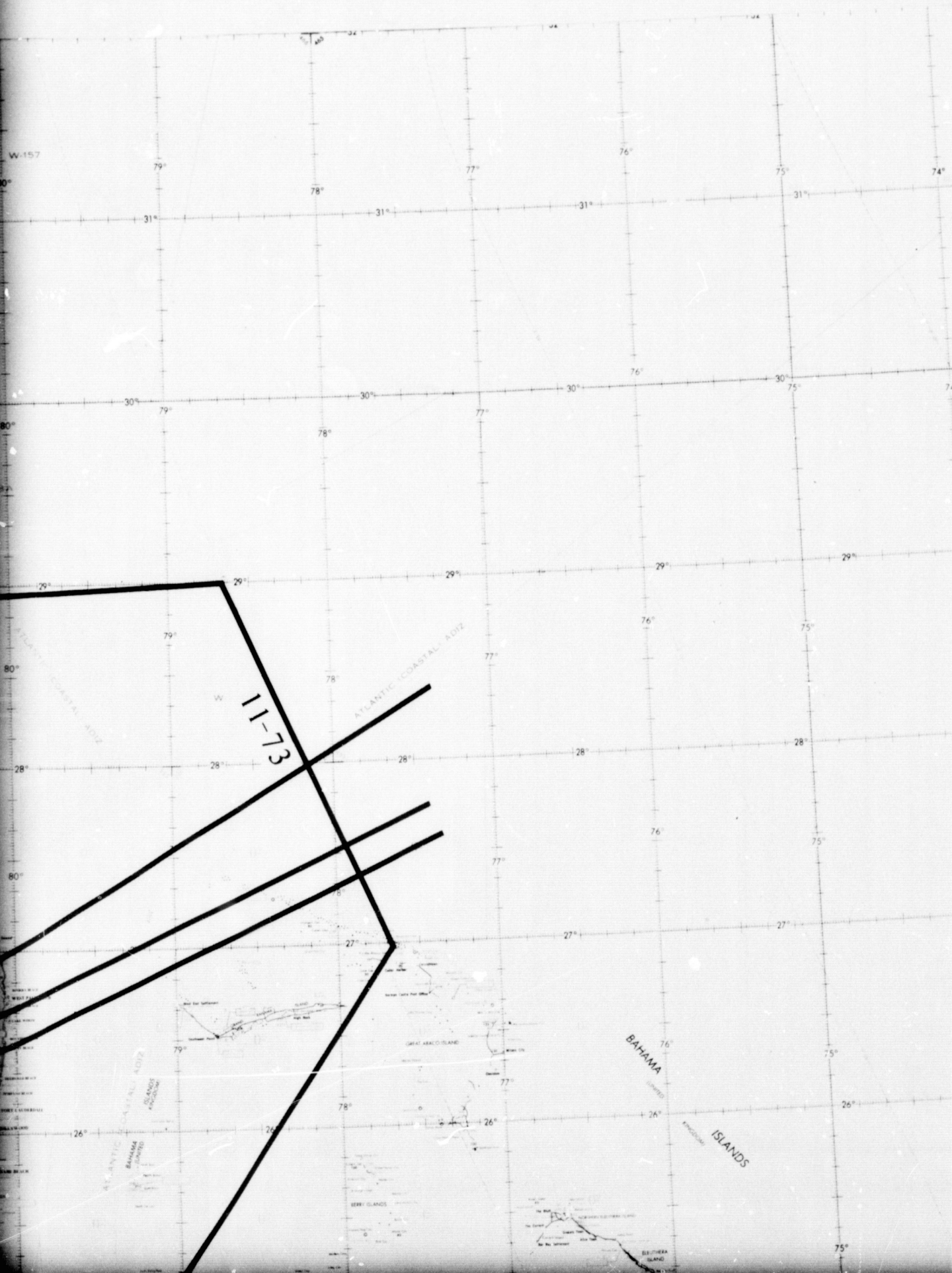
FOLDOUT FRAME

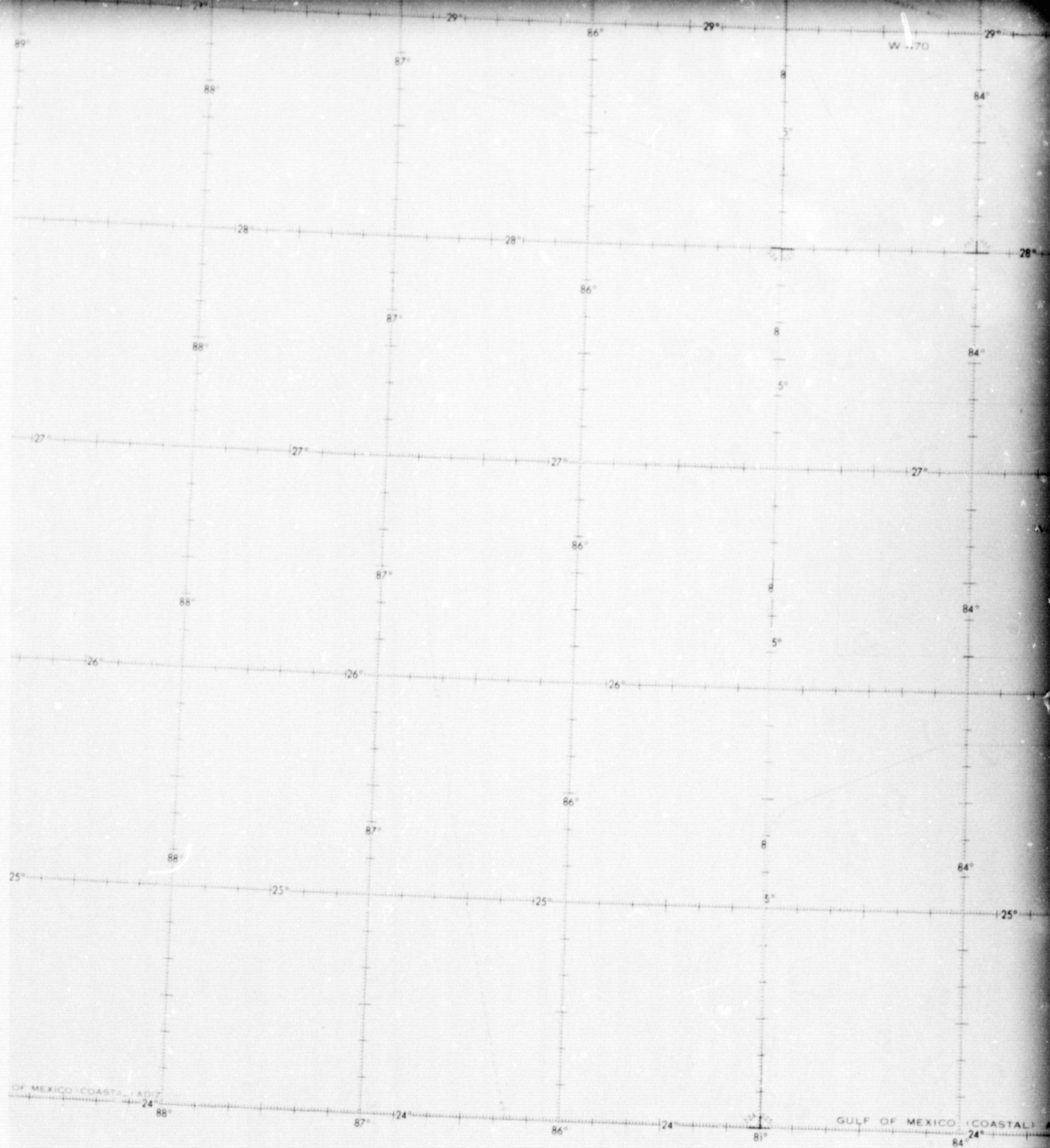


FOLDOUT FRAME 2



EXDOUT FRAME
3





FOLDOUT FRAME

4

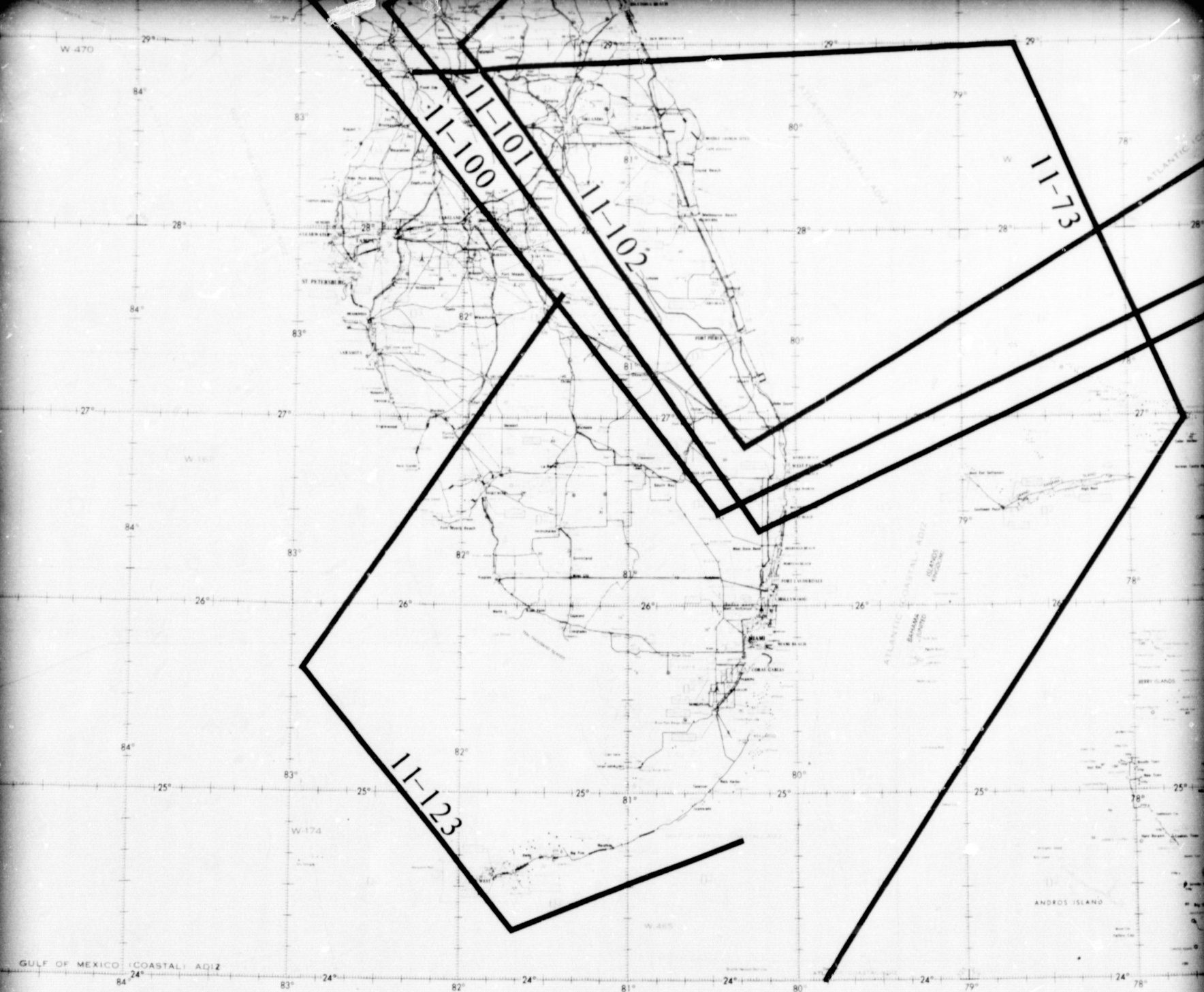


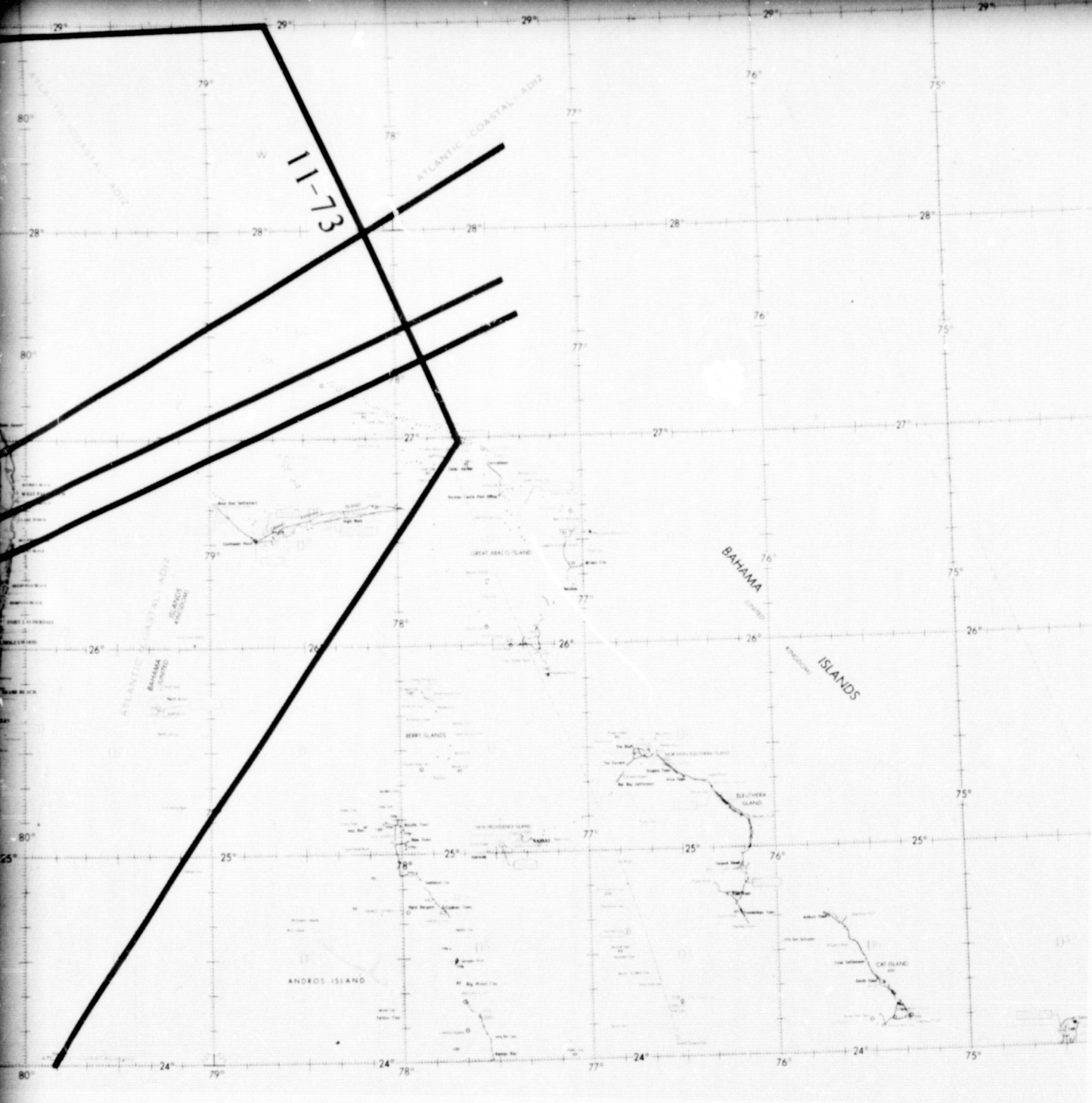
FIGURE 32

GEMINI 12

FLORIDA AND ADJACENT AREAS (SECOND PART)

FOLDOUT FRAME

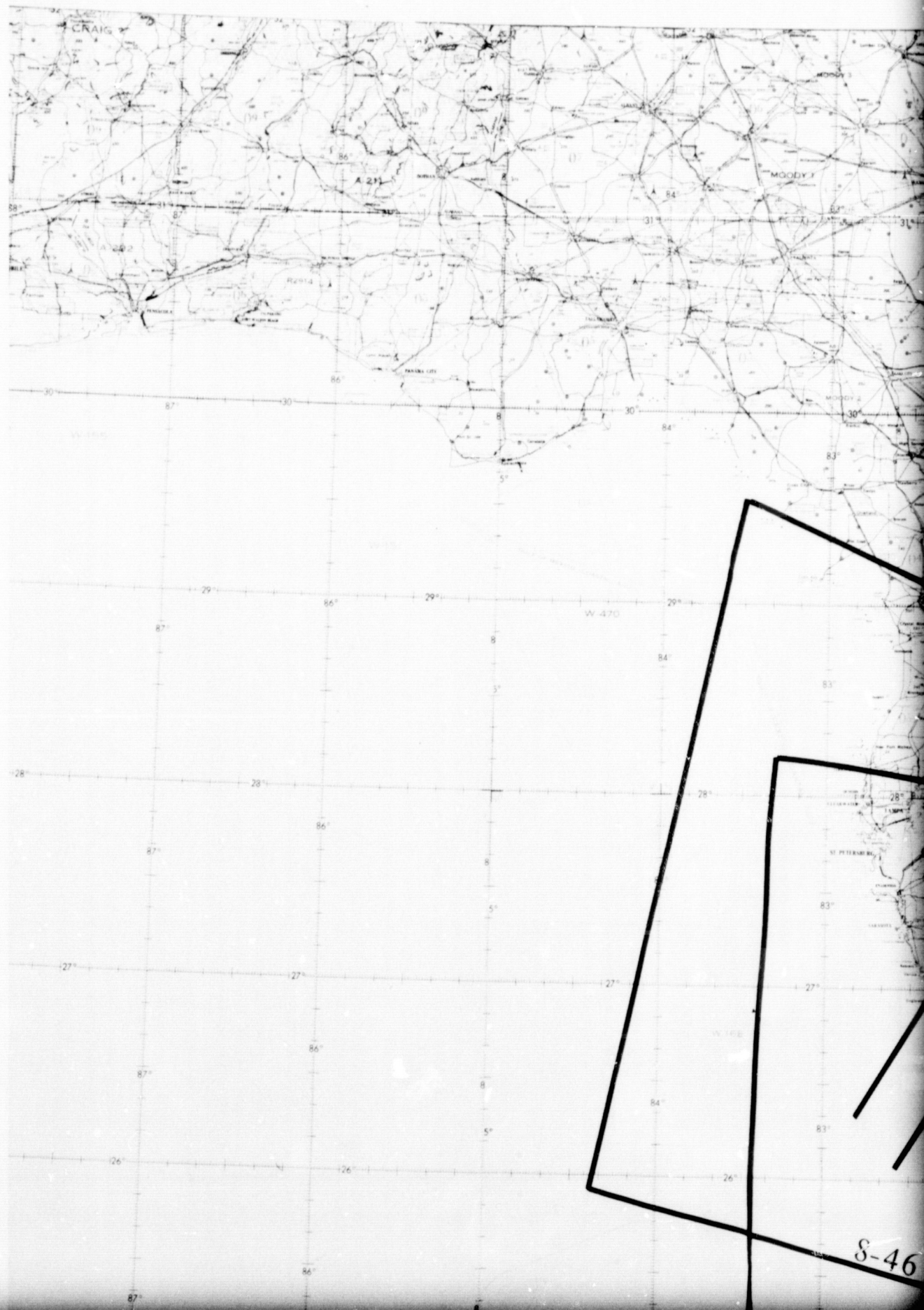
5



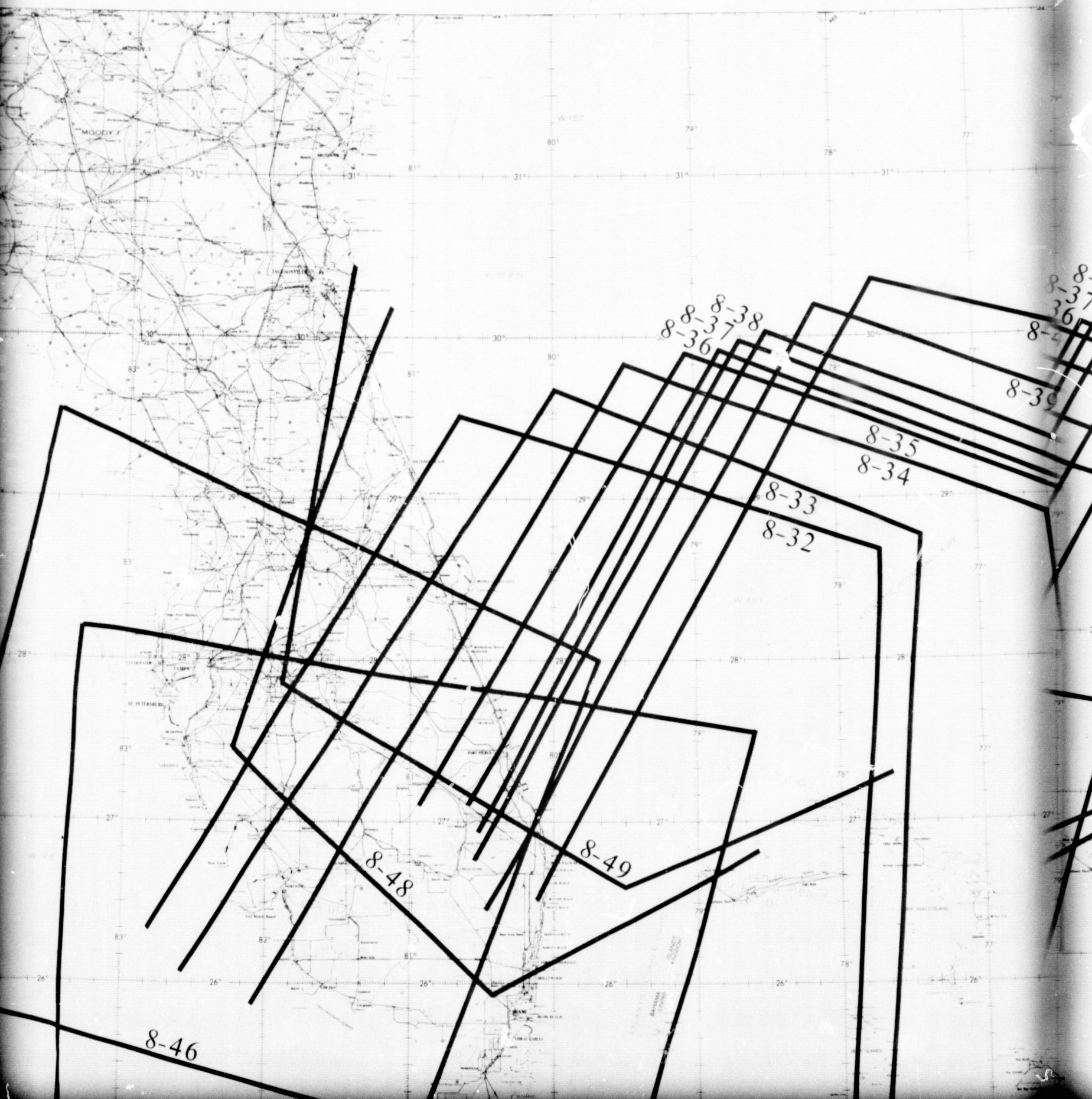
FOLDOUT FRAME

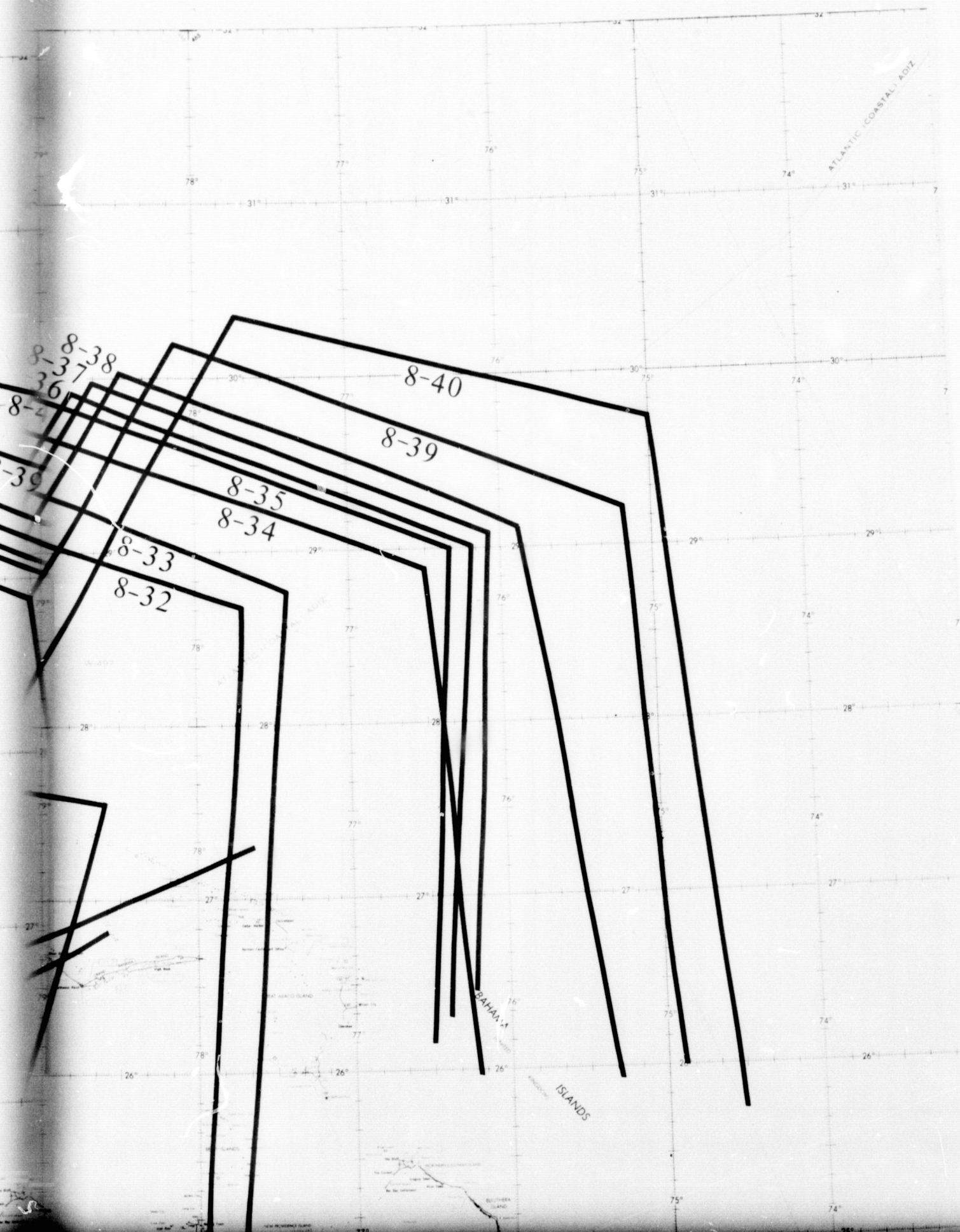
6

FOLDOUT FRAME /



FOLDOUT FRAME 2







FOLDOUT FRAME 4

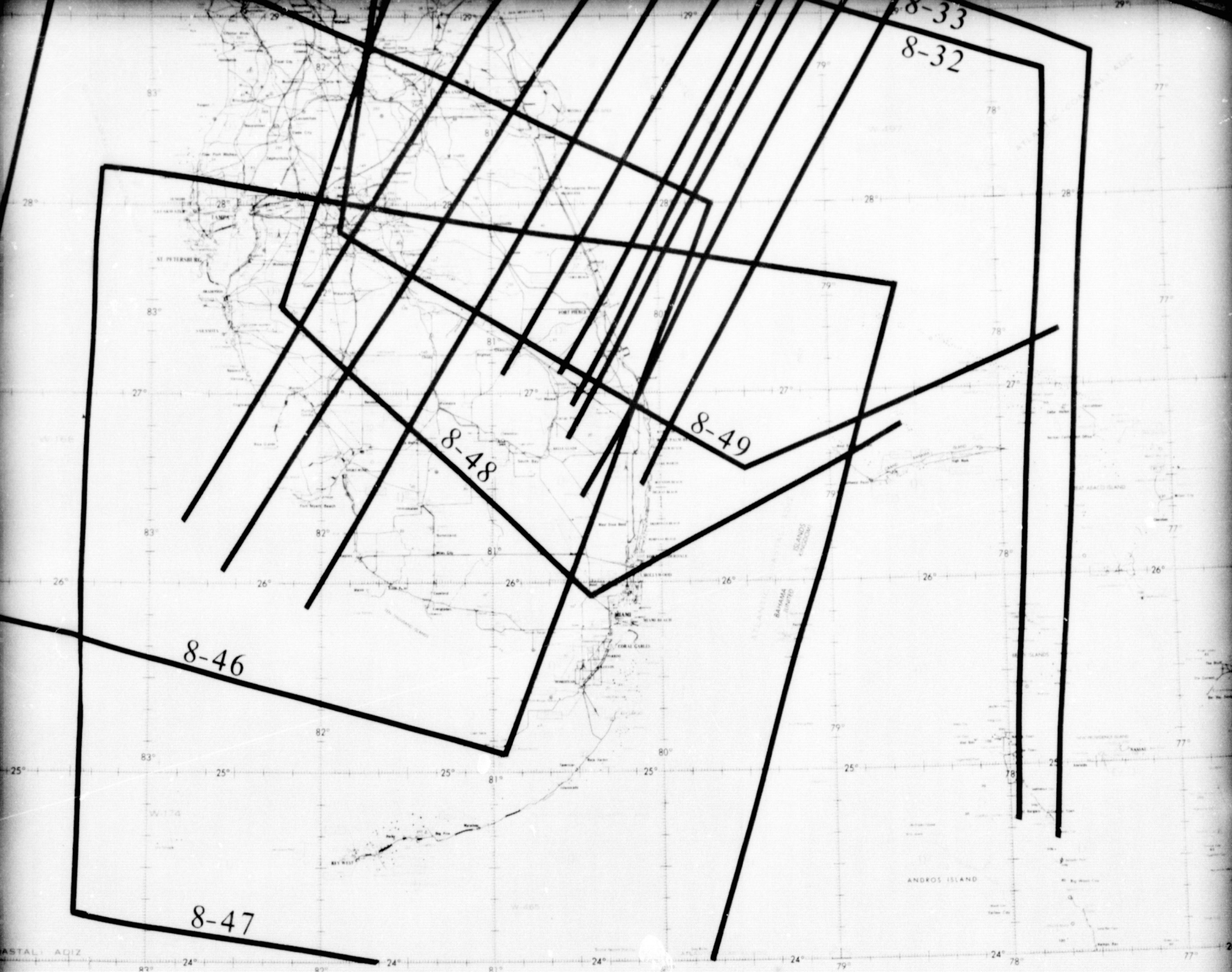
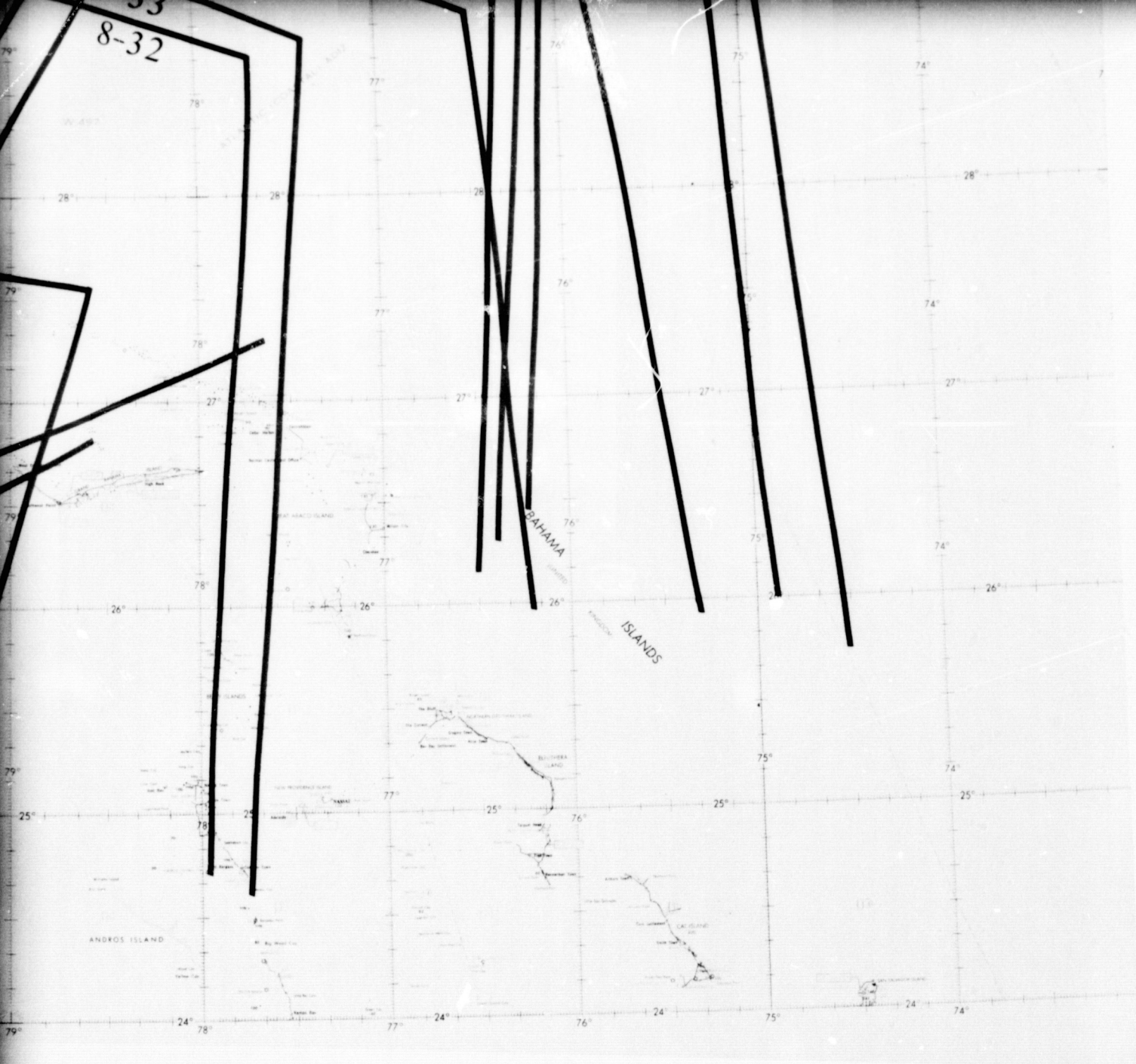


FIGURE 33

GEMINI 12

FLORIDA AND ADJACENT AREAS (THIRD PART)

FOLDOUT FRAME
5



FOLDOUT FRAME

6

FOLDOUT FRAME



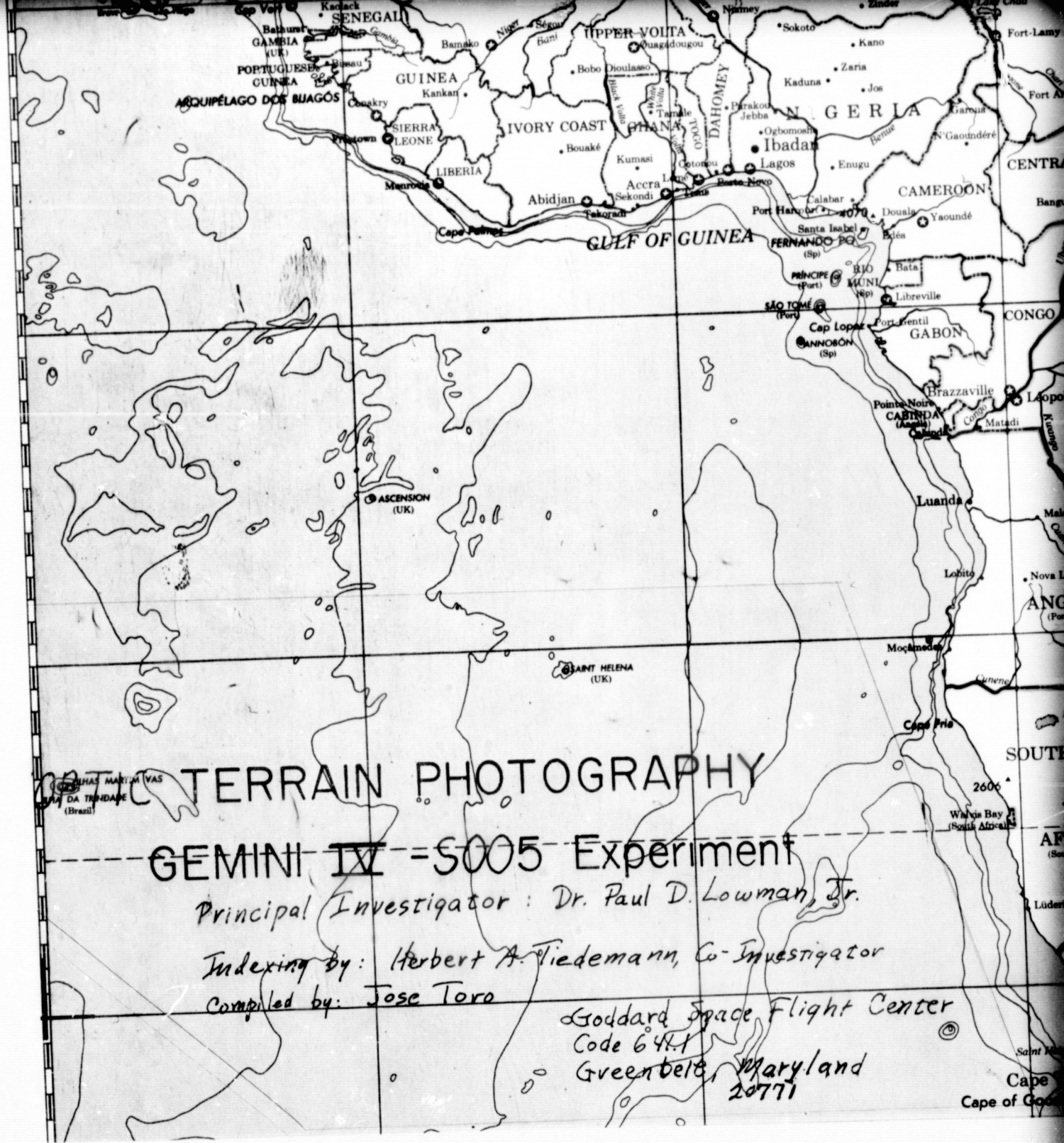
2



FOLDOUT FRAME

3





ASCENSION (UK)

TERRAIN PHOTOGRAPHY

GEMINI IV - S005 Experiment

Principal Investigator: Dr. Paul D. Lowman, Jr.

Indexing by: Herbert A. Tiedemann, Co-Investigator

Compiled by: Jose Toro

Goddard Space Flight Center
Code 64.1
Greenbelt, Maryland
20771

FOLDOUT FRAME

4

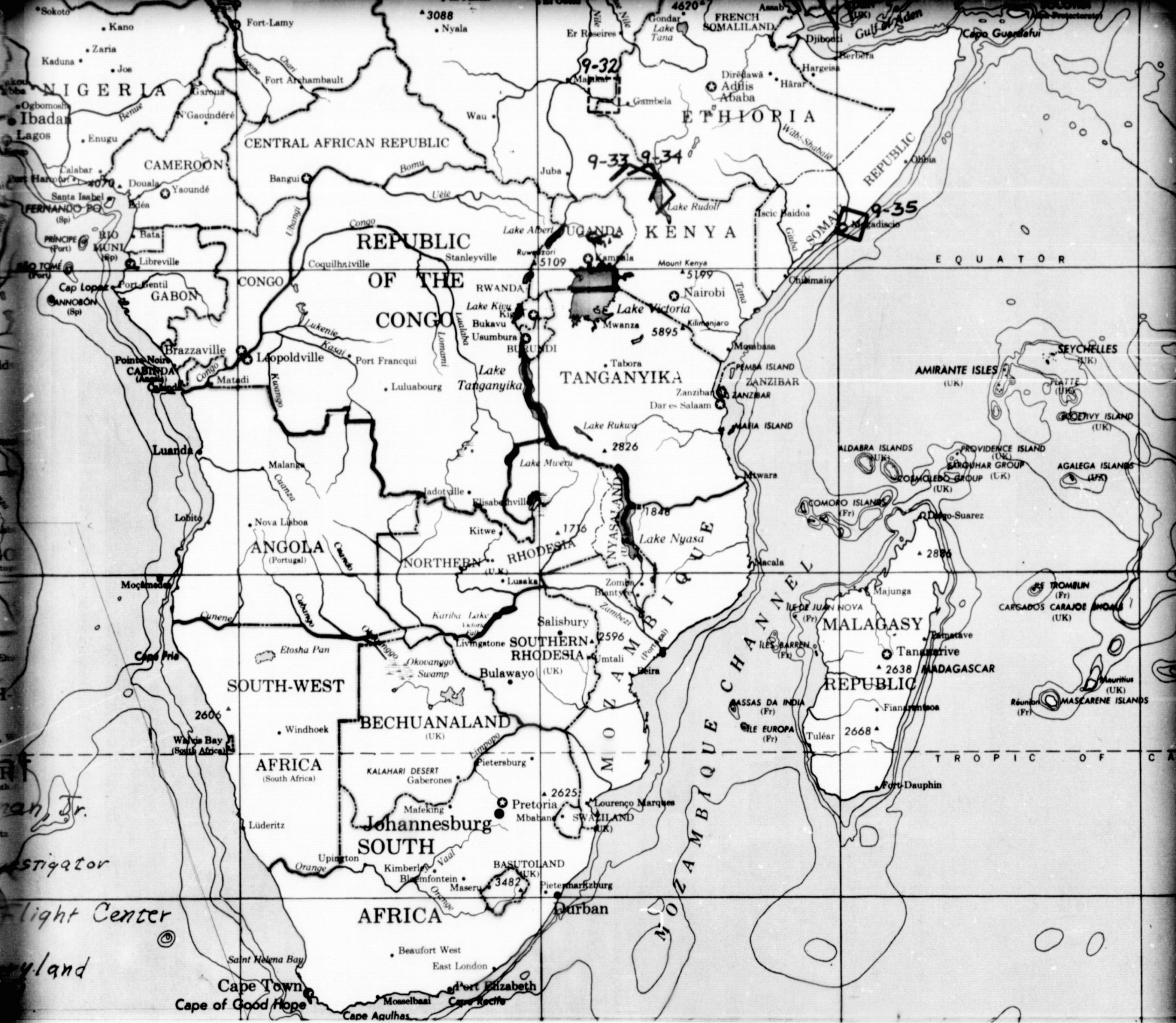


FIGURE 34

GEMINI 4

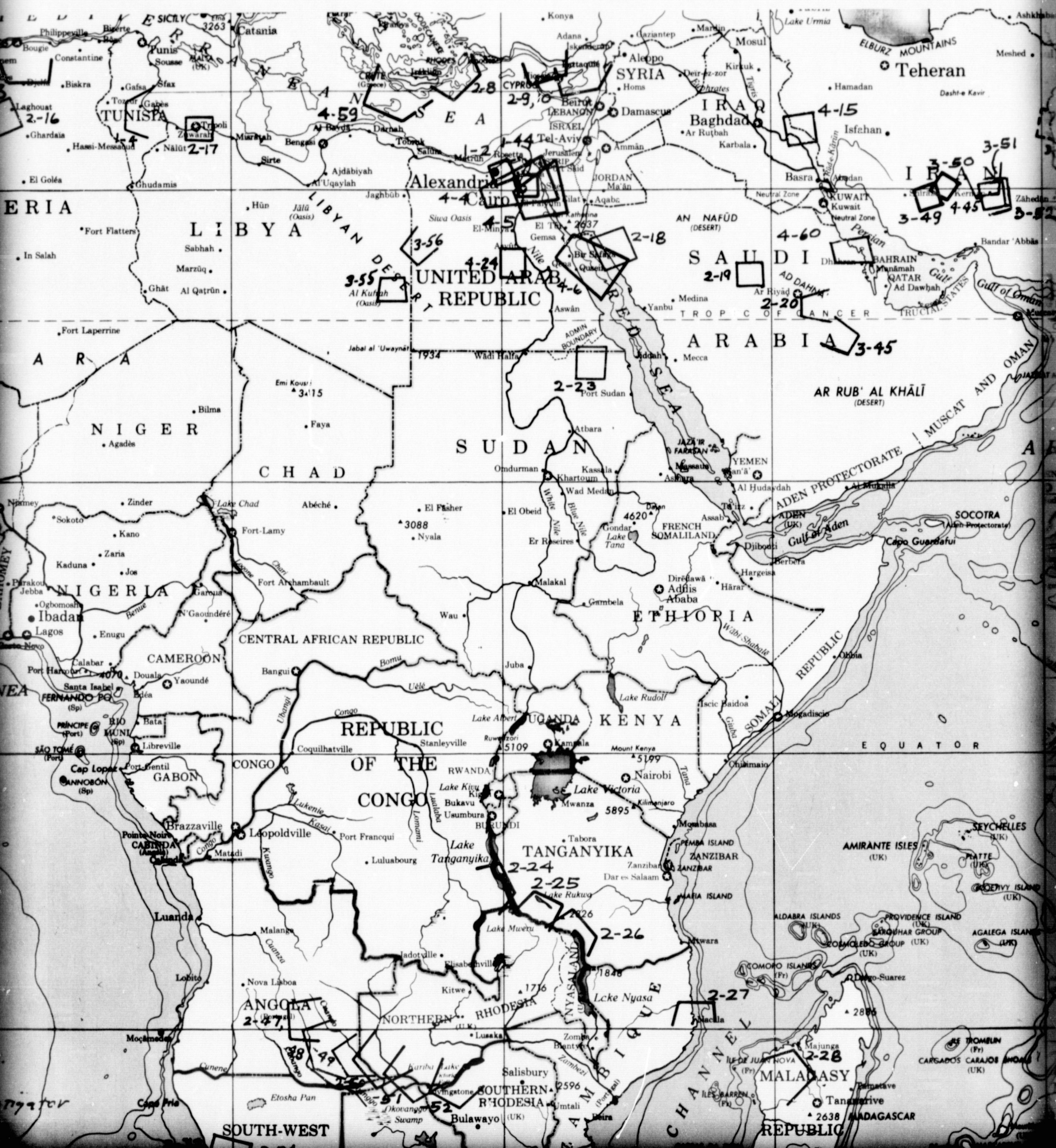
AFRICA, INDIA, AND THE NEAR EAST

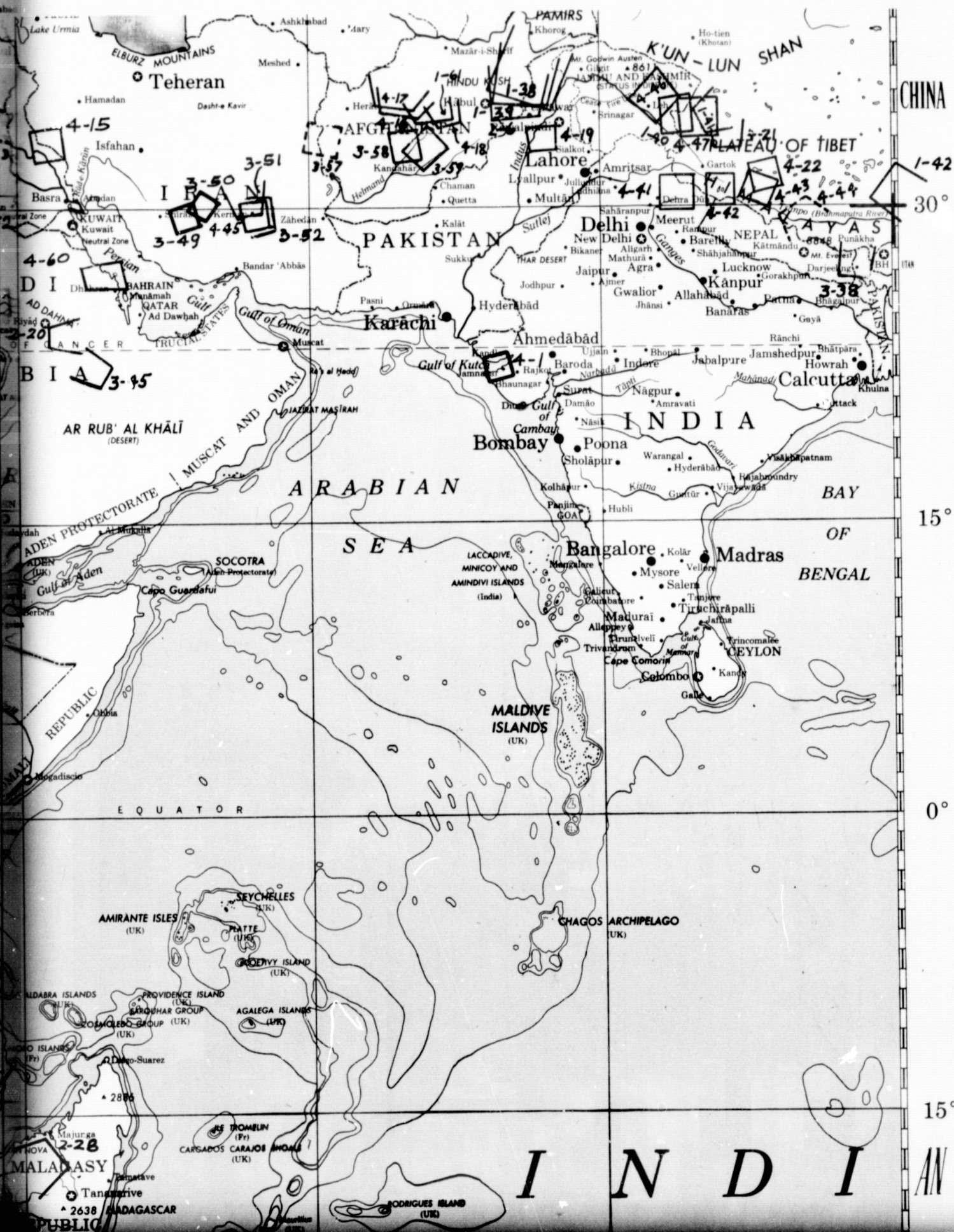
FOLDOUT FRAME

3

FOLDOUT FRAME









FOLDOUT FRAME

4

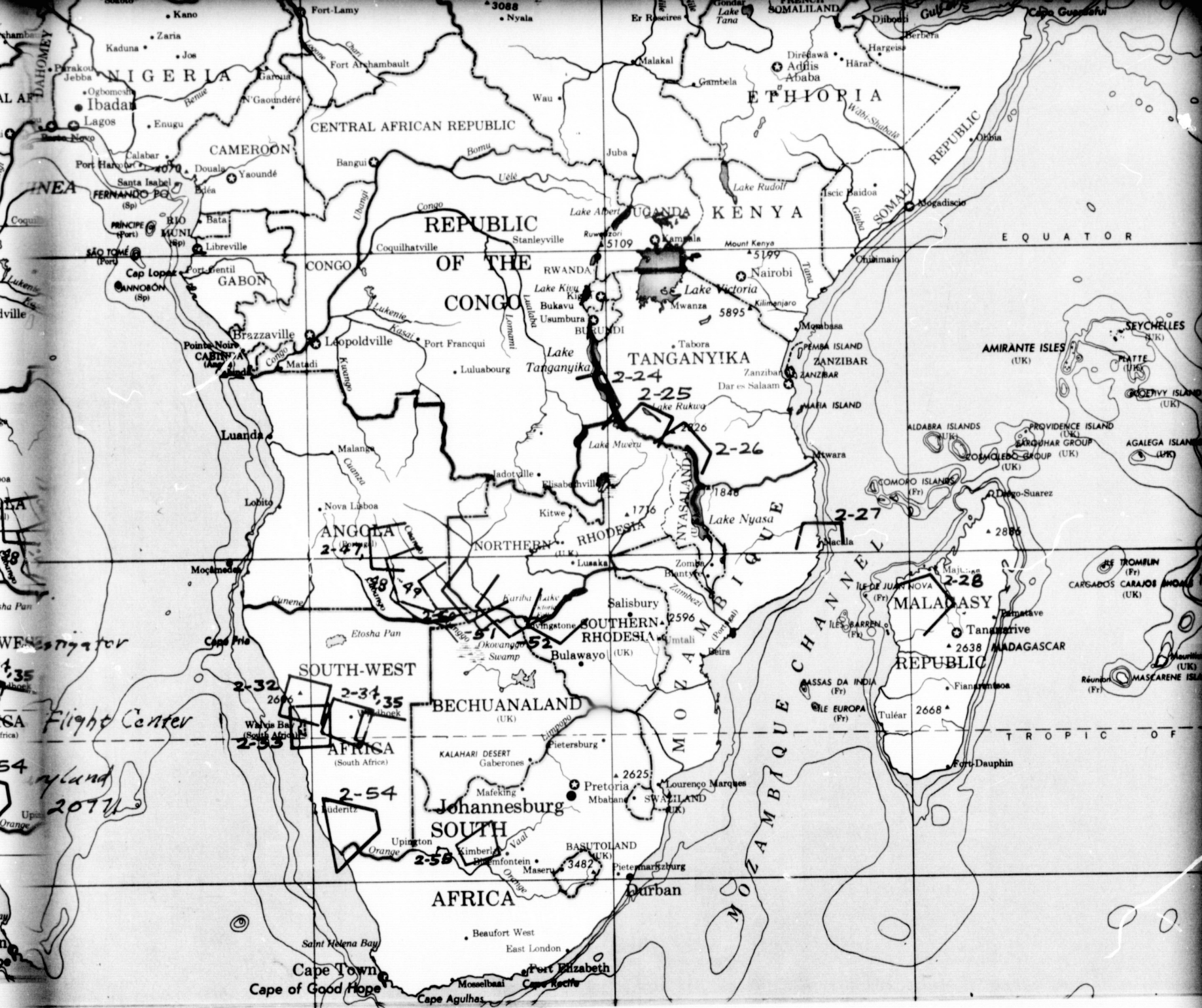


FIGURE 35

GEMINI 5

AFRICA, INDIA, AND THE NEAR EAST

MOLDOUT FRAME 5



FOLDOUT FRAME

6

FOLDOUT FRAME /



GEMINI VI - Synoptic Terrain Photography

Experiment SQ05 Principal Investigator: Dr. Paul D. Lowman, Jr.

Indexing by: Herbert A. Tiedemann, Co-Investigator

Compiled by Jose Toro

Goddard Space Flight Center

Code 641.1

Greenbelt, Maryland

2.



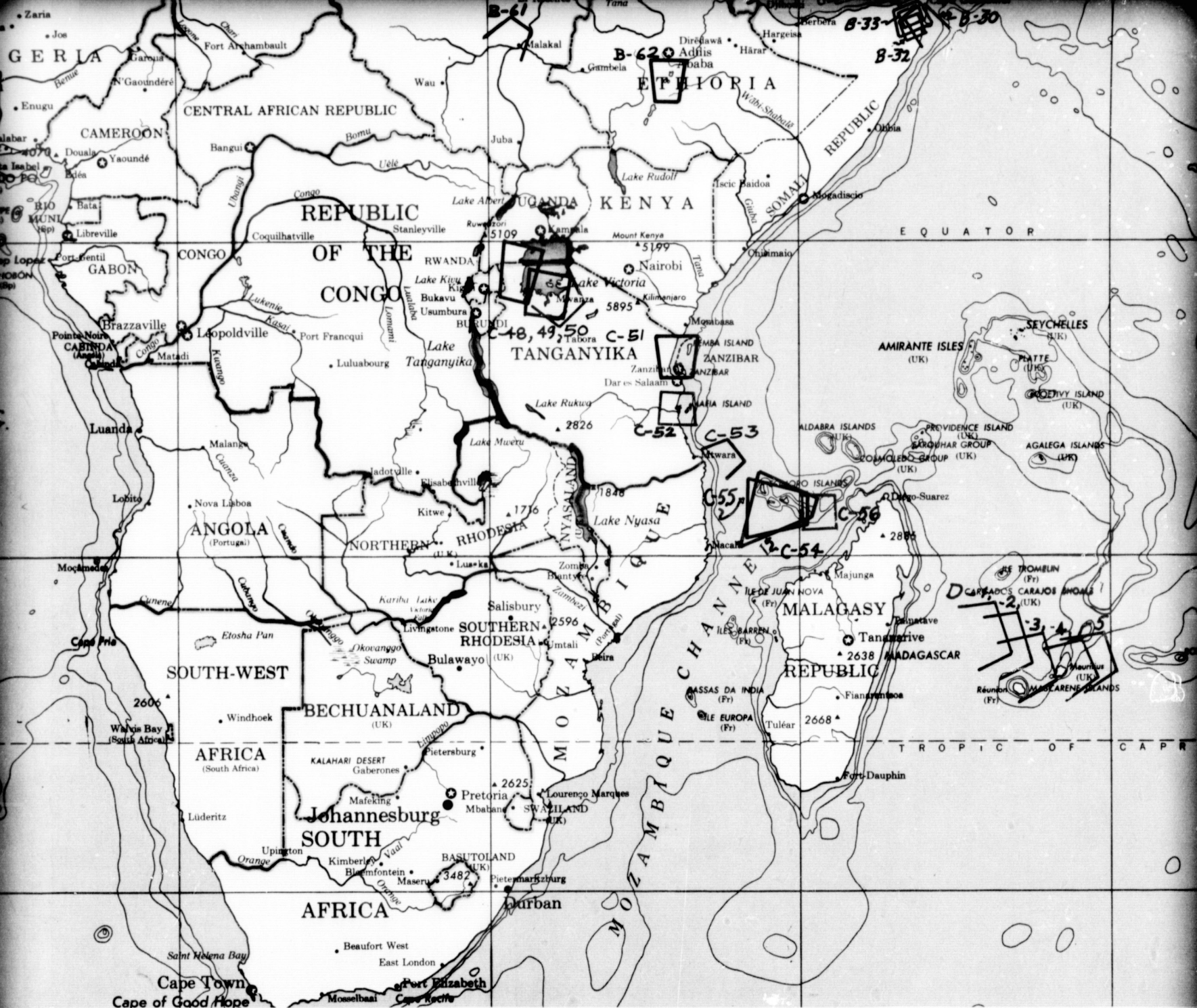


FIGURE 36

GEMINI 6

AFRICA, INDIA, AND THE NEAR EAST

FOLDOUT FRAME

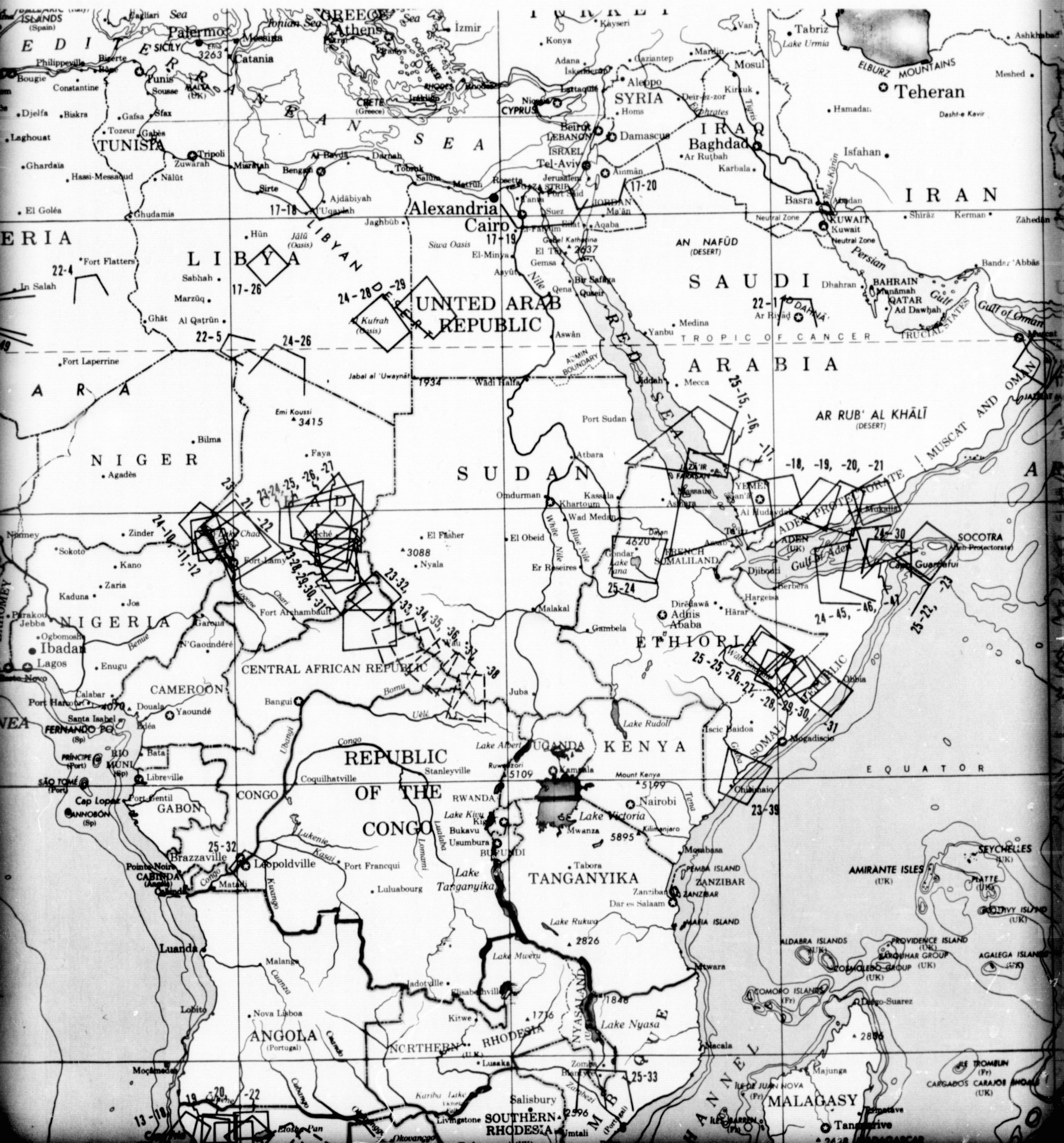
5

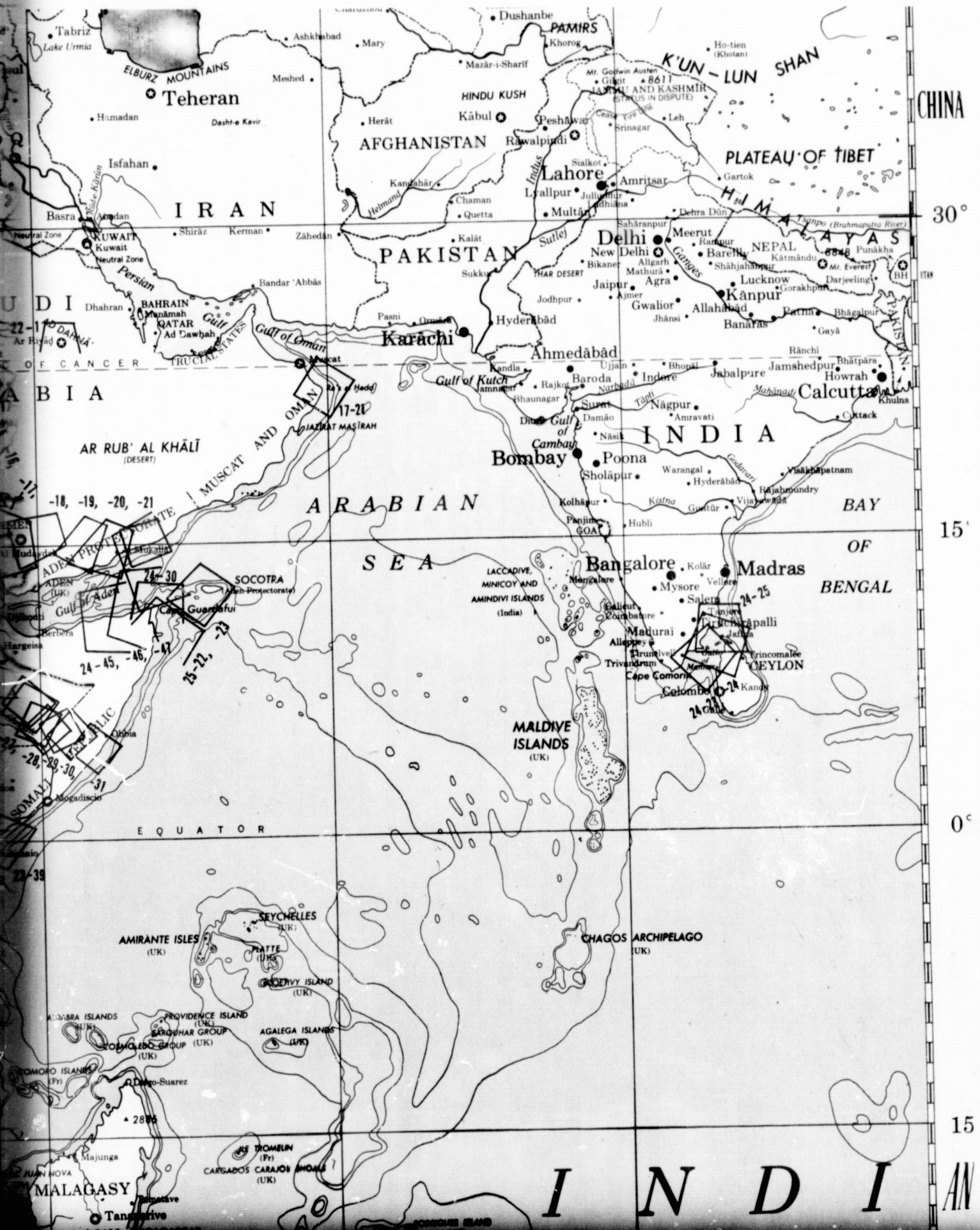


FOLDOUT FRAME

FOLDOUT FRAME







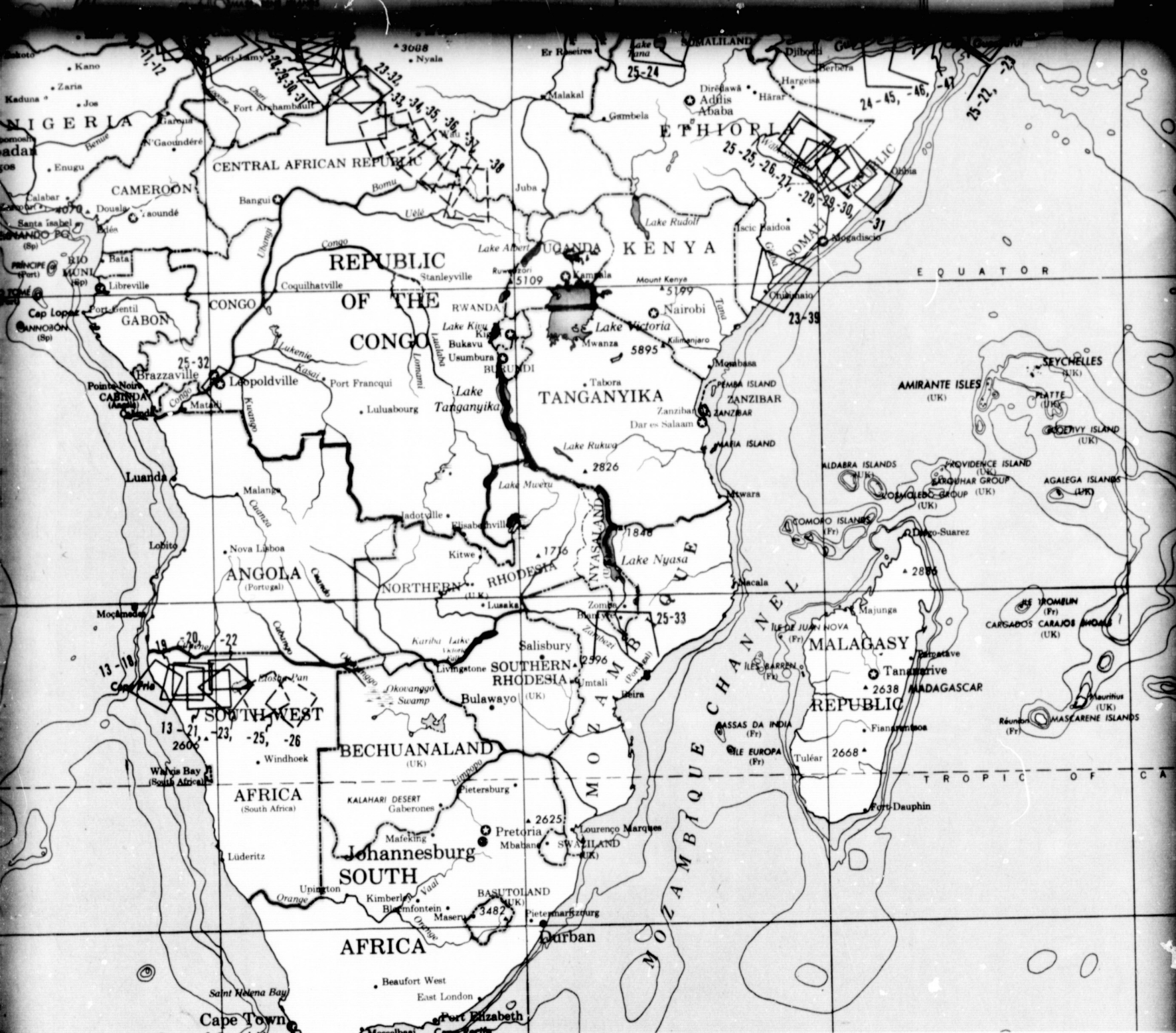


FIGURE 37

GEMINI 7

AFRICA, INDIA, AND THE NEAR EAST

FOLDOUT FRAME 5

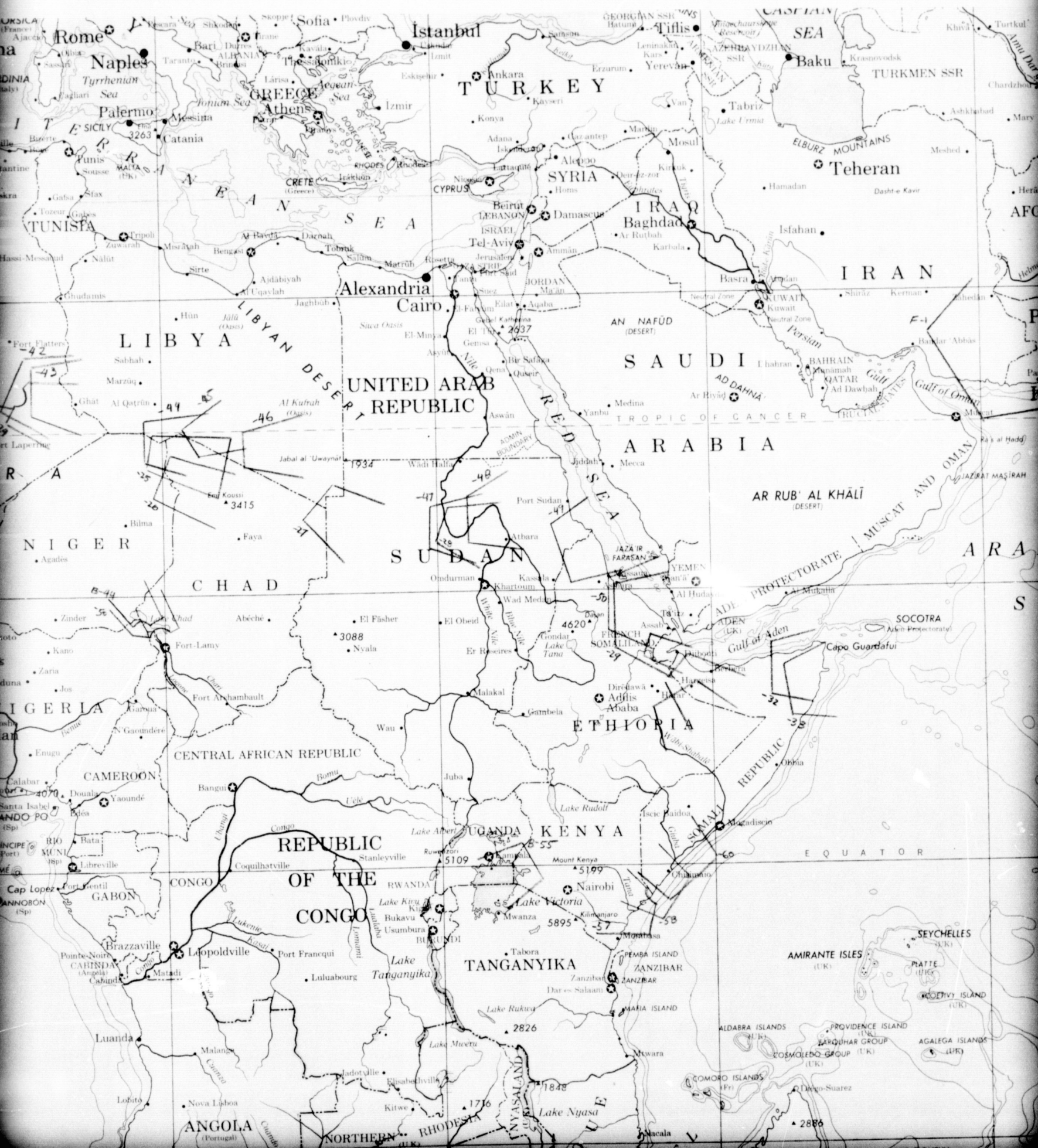


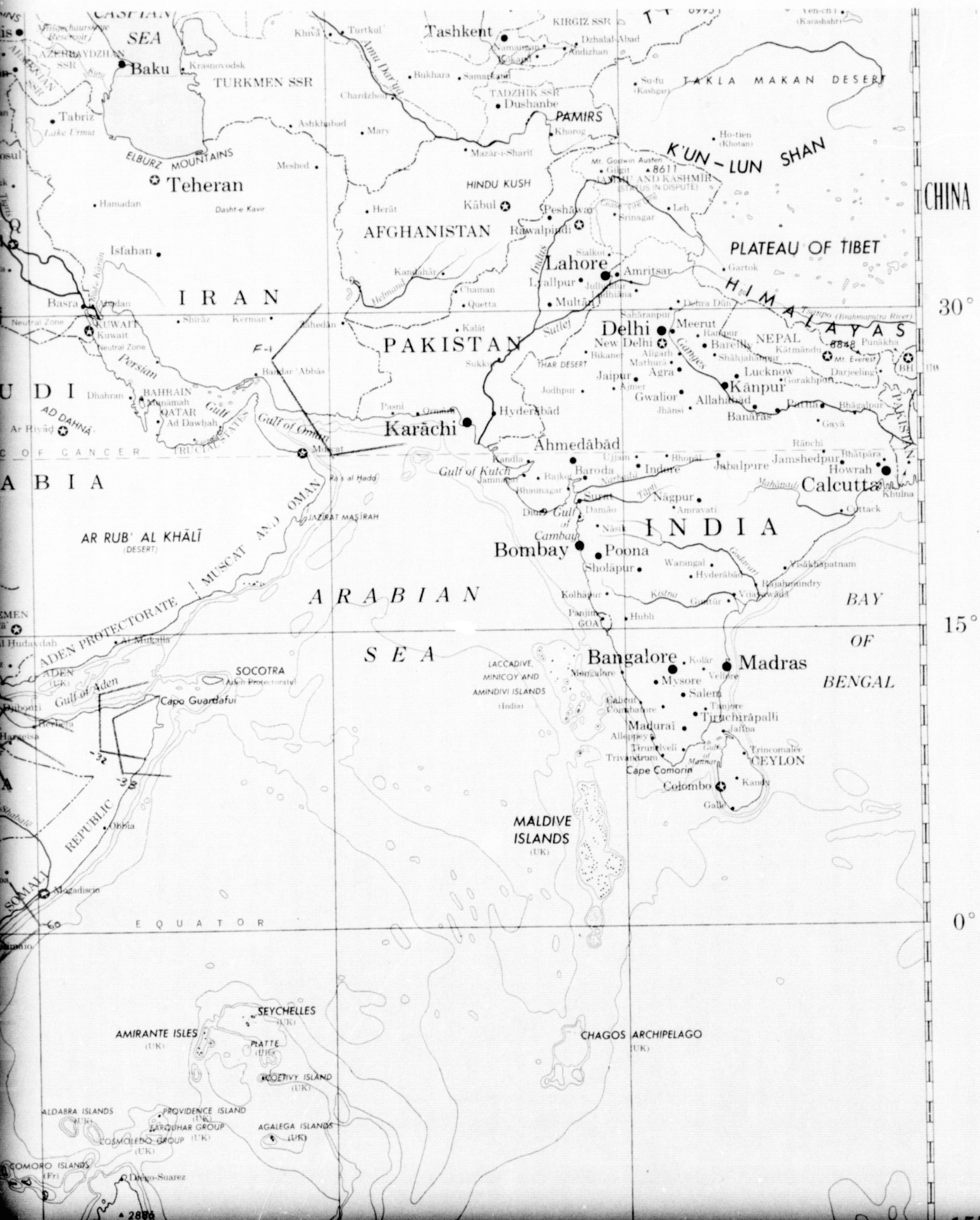
OLDOUT FRAME

6

FOLDOUT FRAME









FOLDOUT FRAME

4

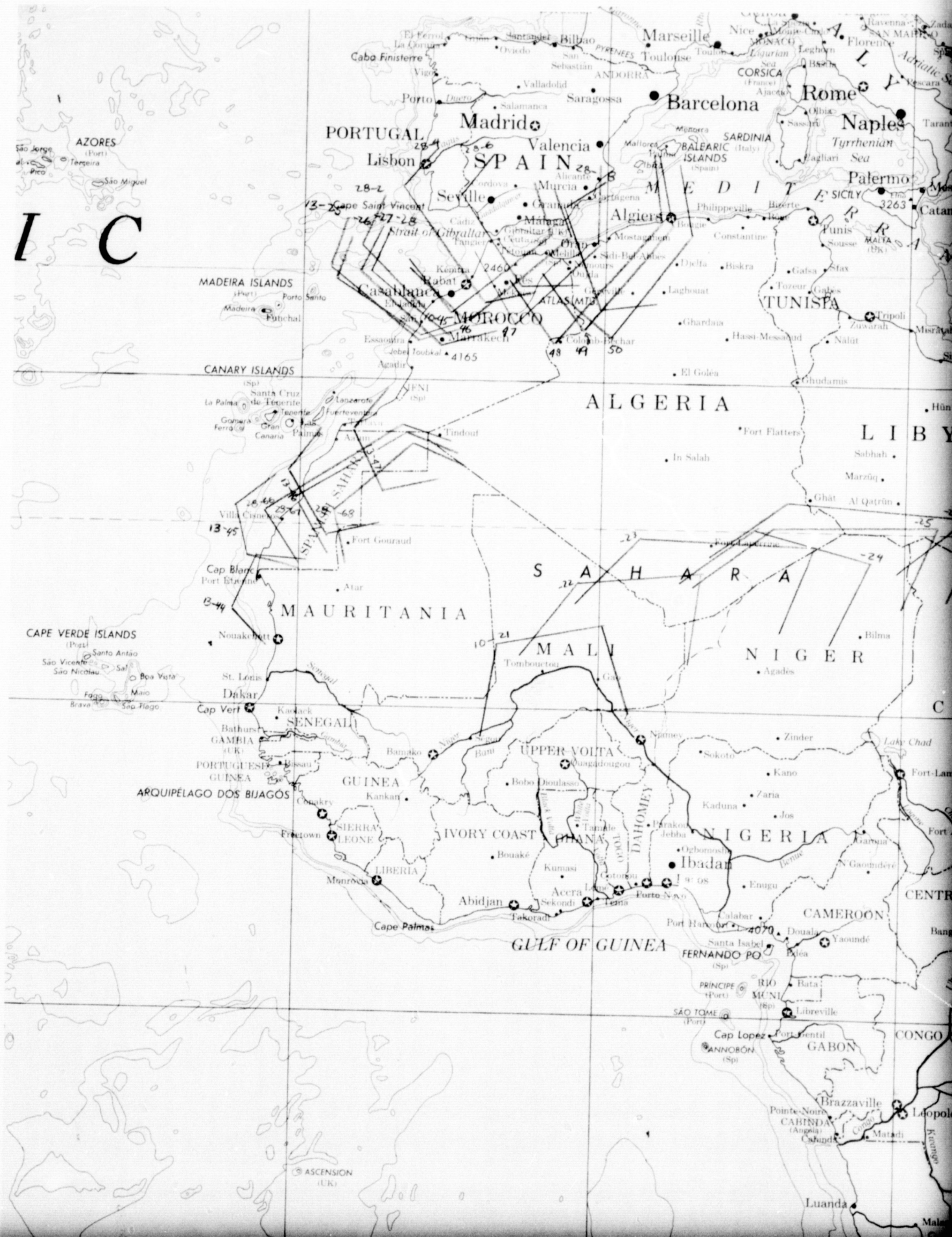


FIGURE 38 **FOLDOUT FRAME**

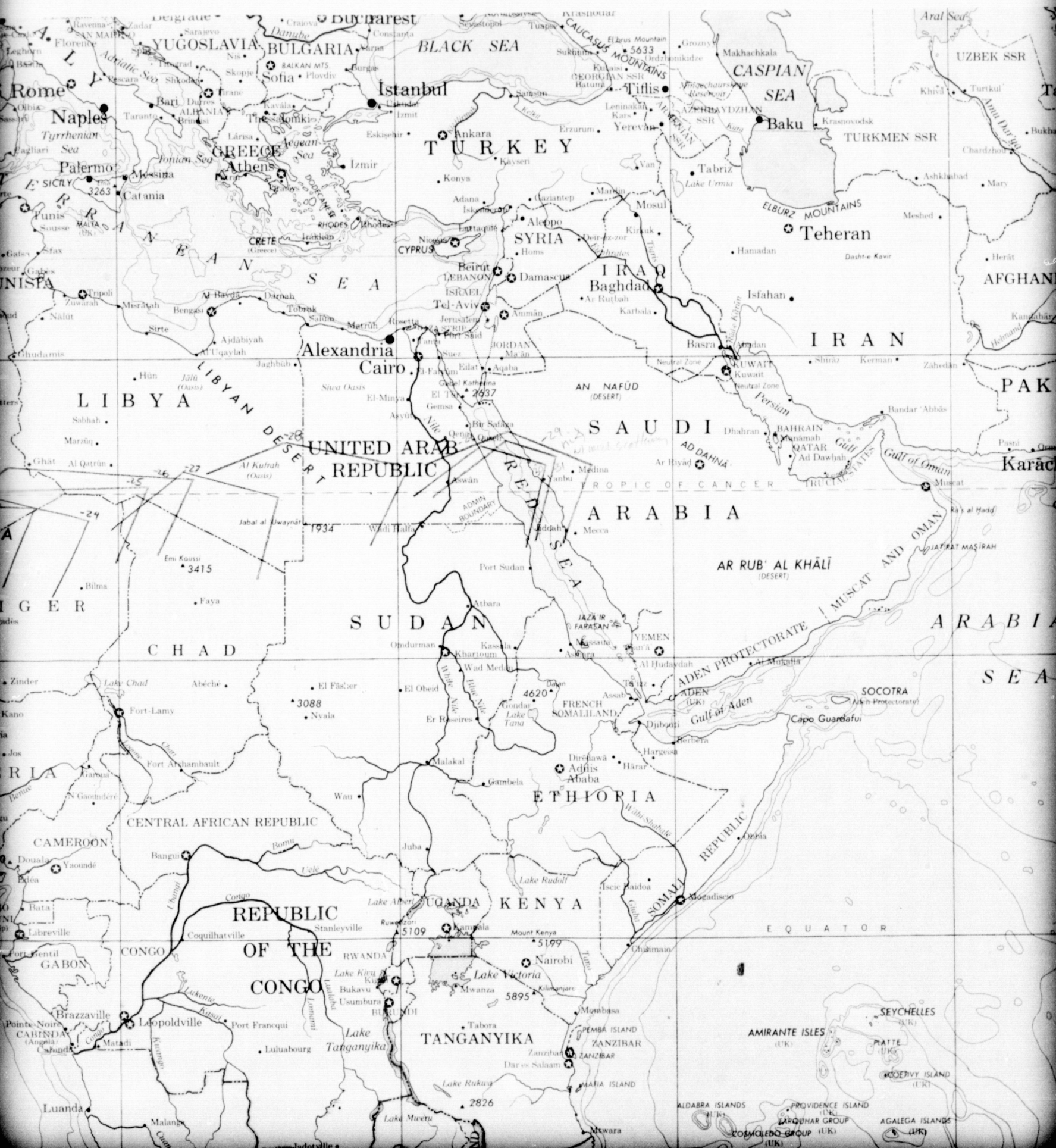
GEMINI 9

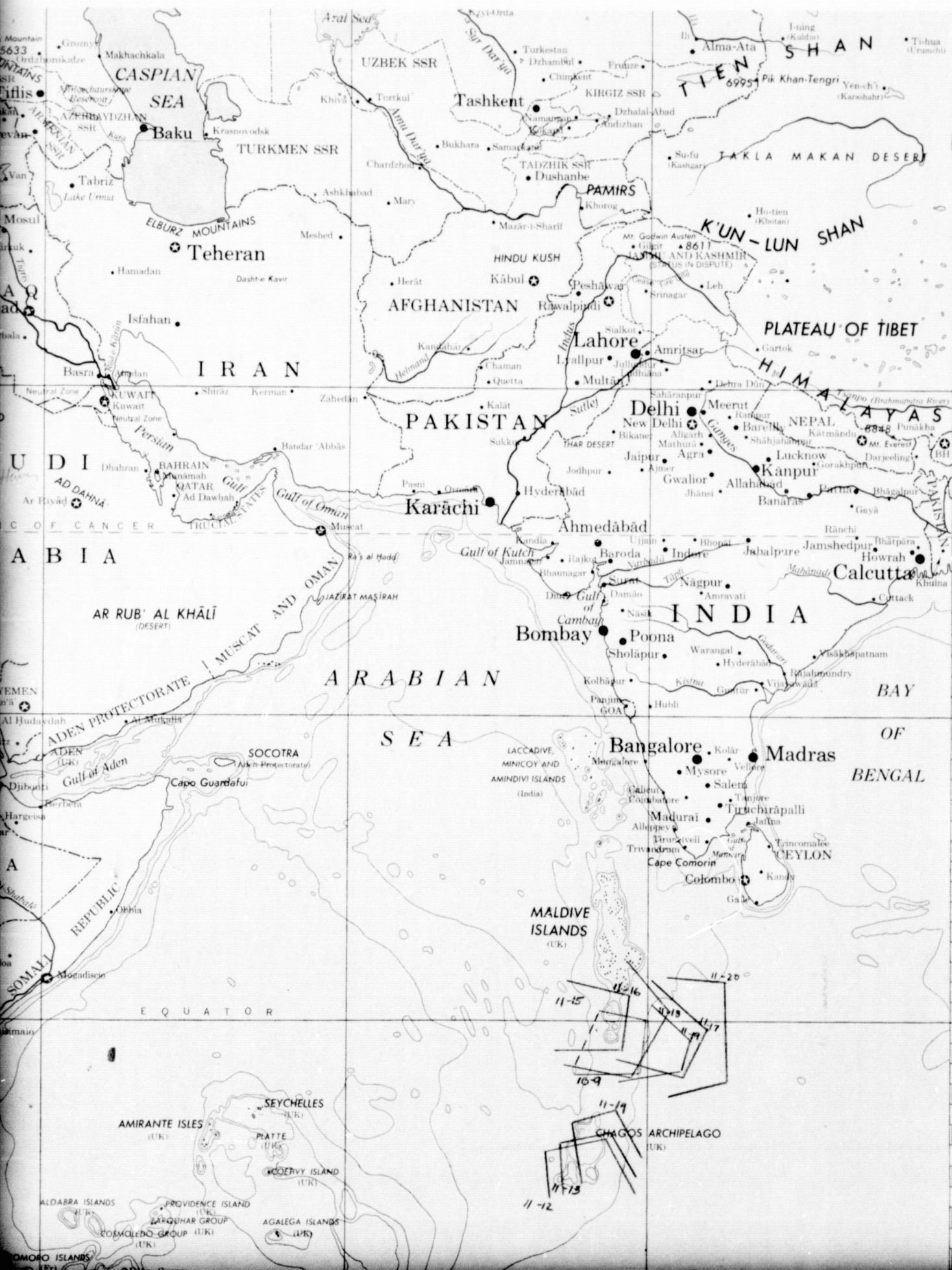
AFRICA, INDIA, AND THE NEAR EAST

FOLDOUT FRAME /



2



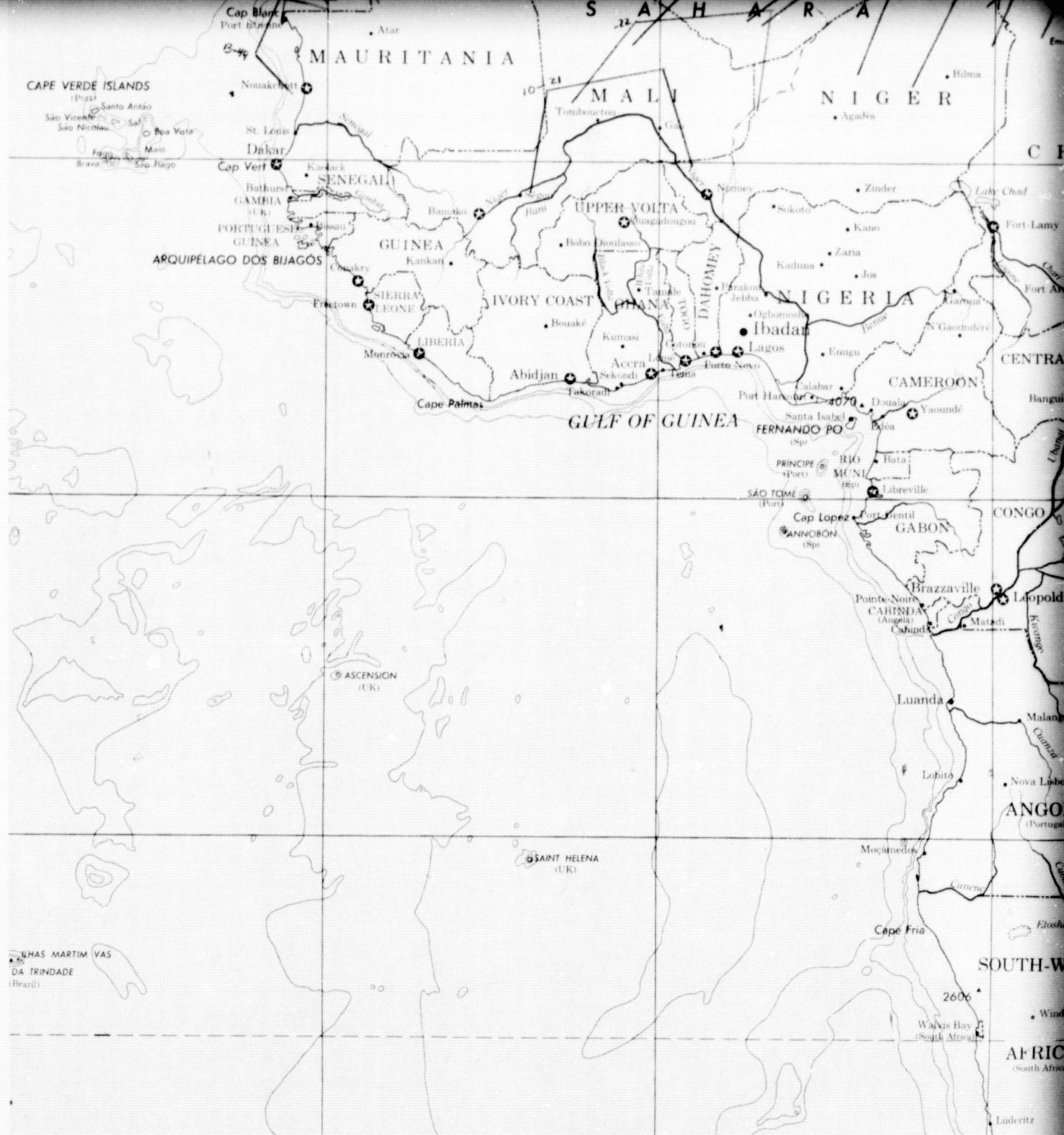


CHINA

30°

15°

0°



FOLDOUT FRAME

H



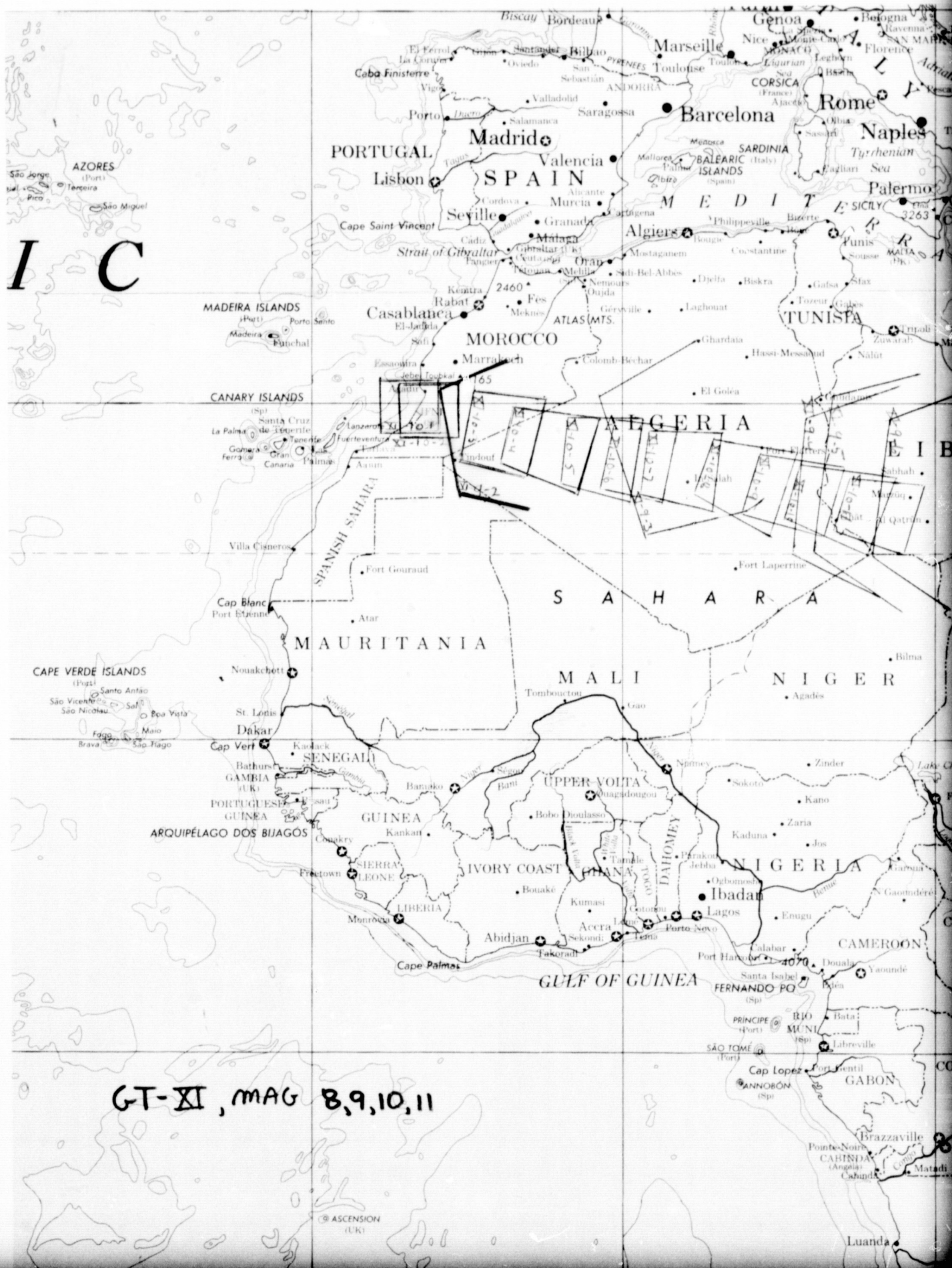
FIGURE 39

GEMINI 10

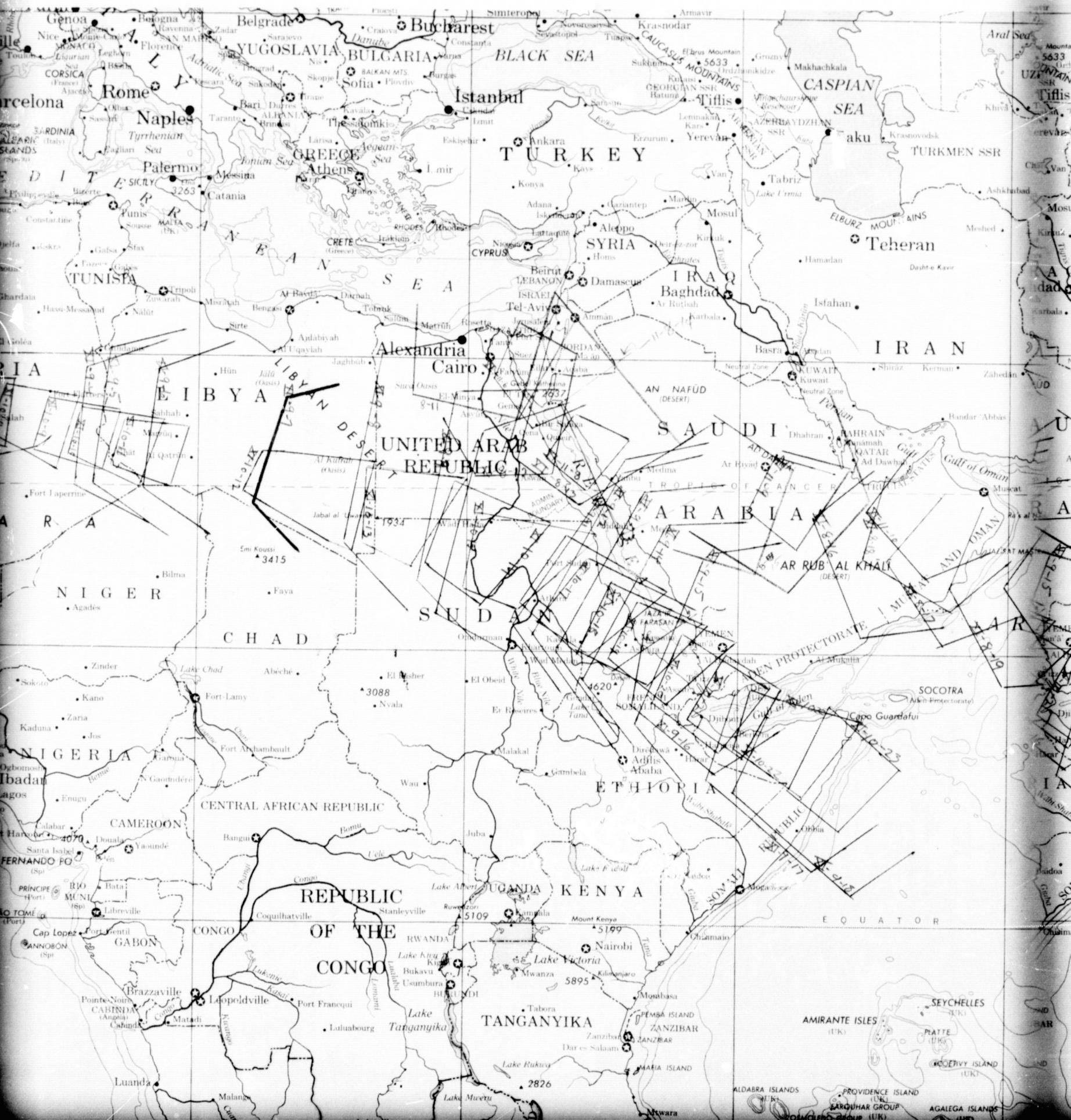
FOLDOUT FRAME

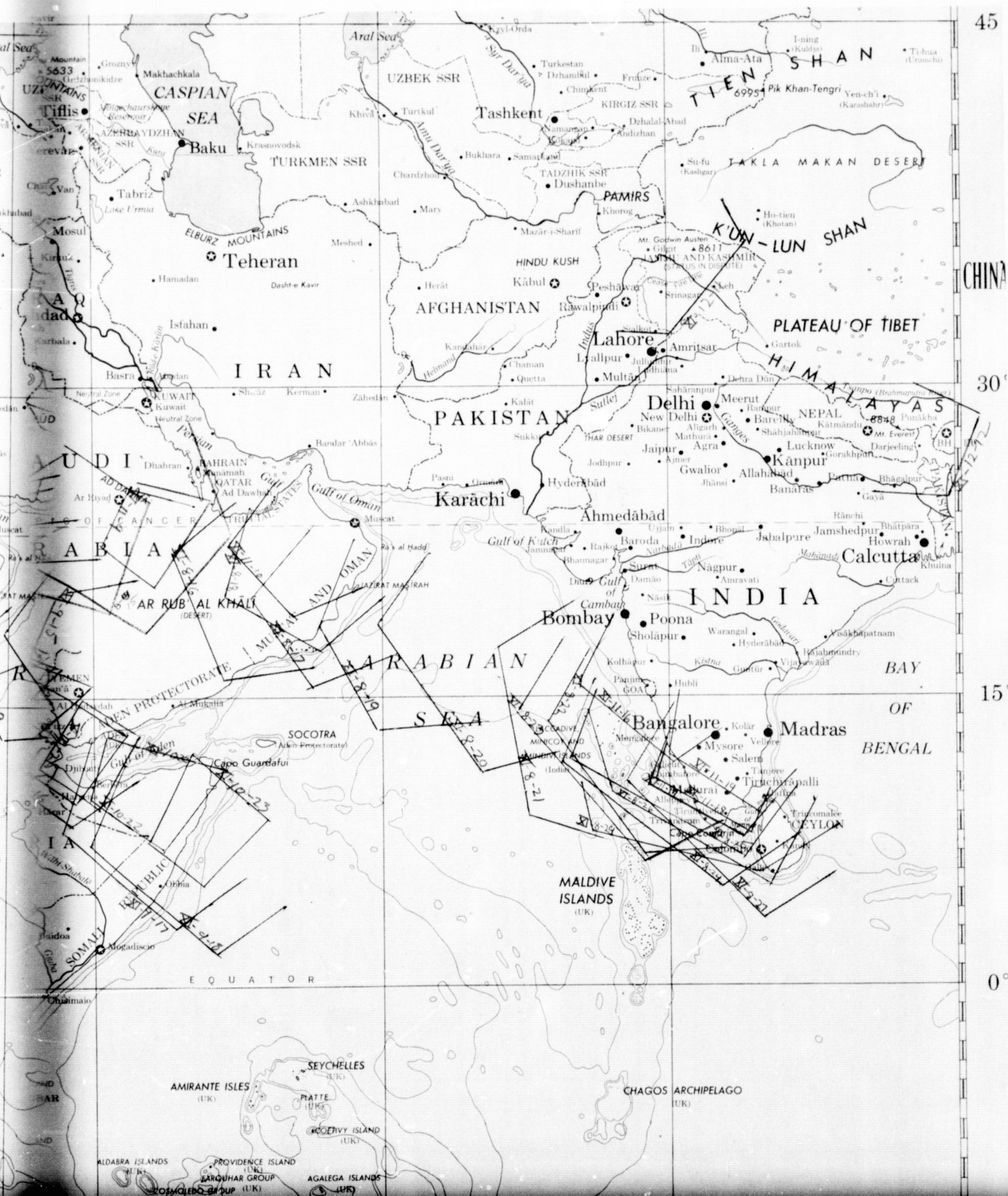
5

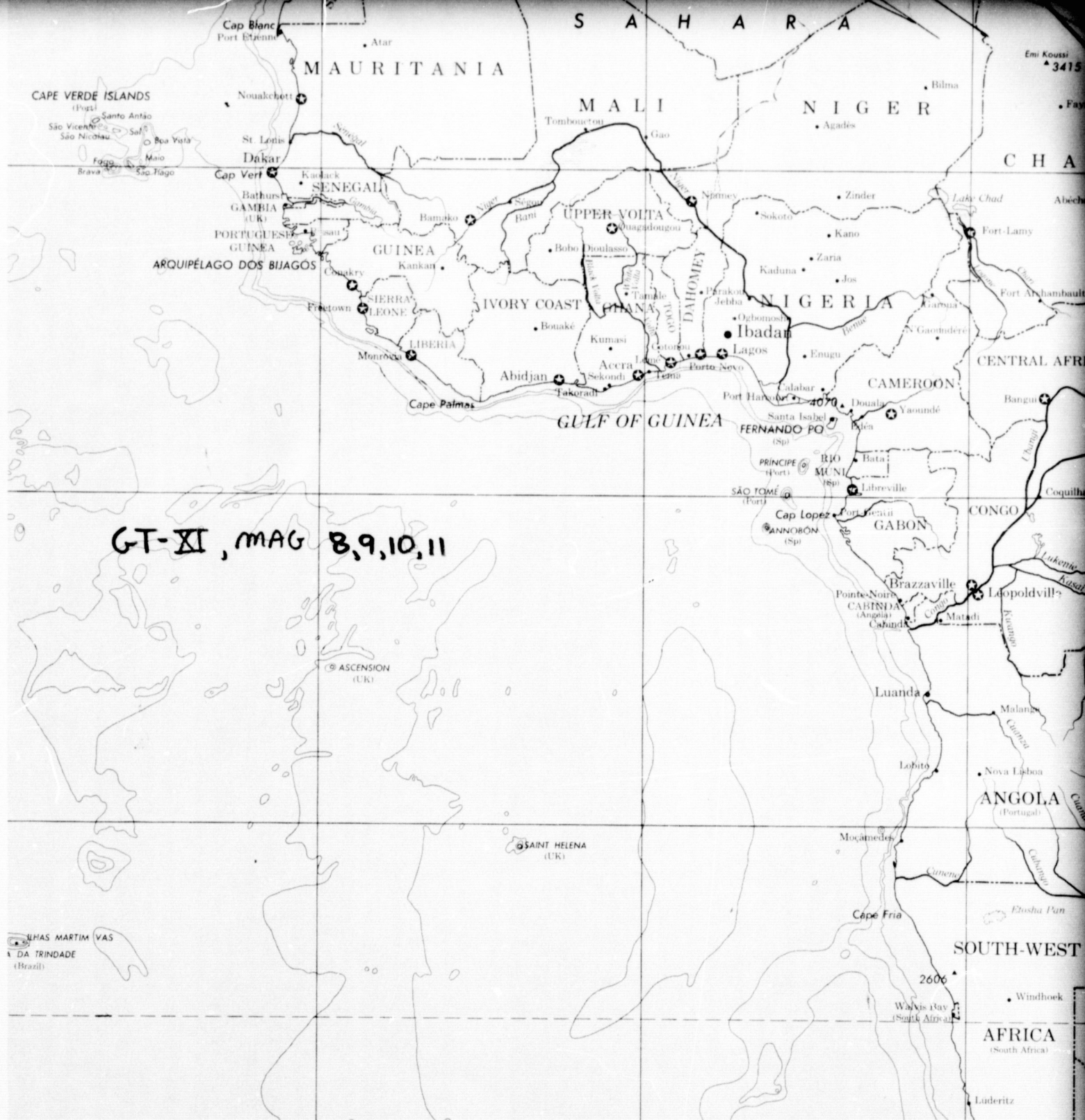
FOLDOUT FRAME



FOLDOUT FRAME 2







FOLDOUT FRAME

4

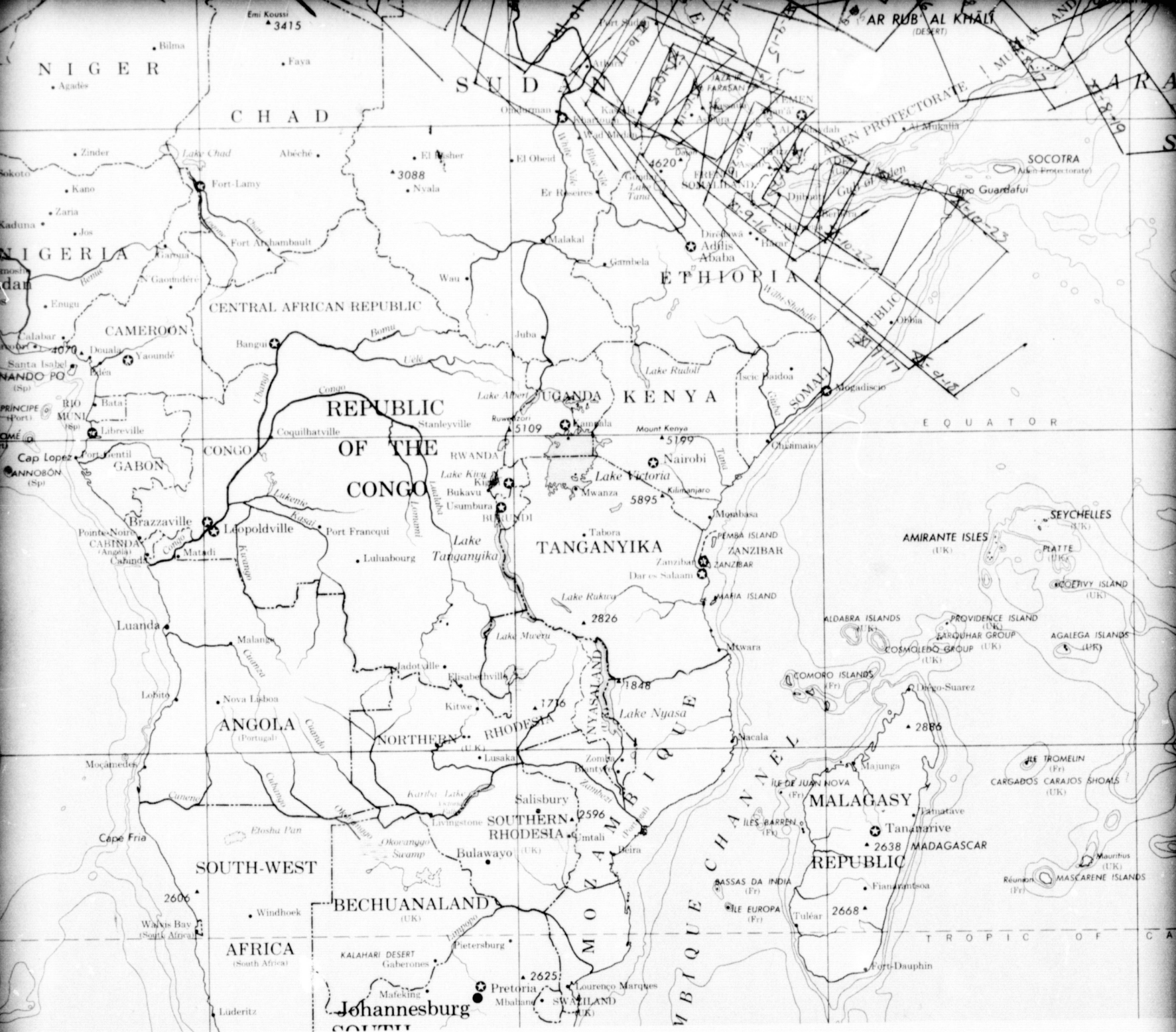


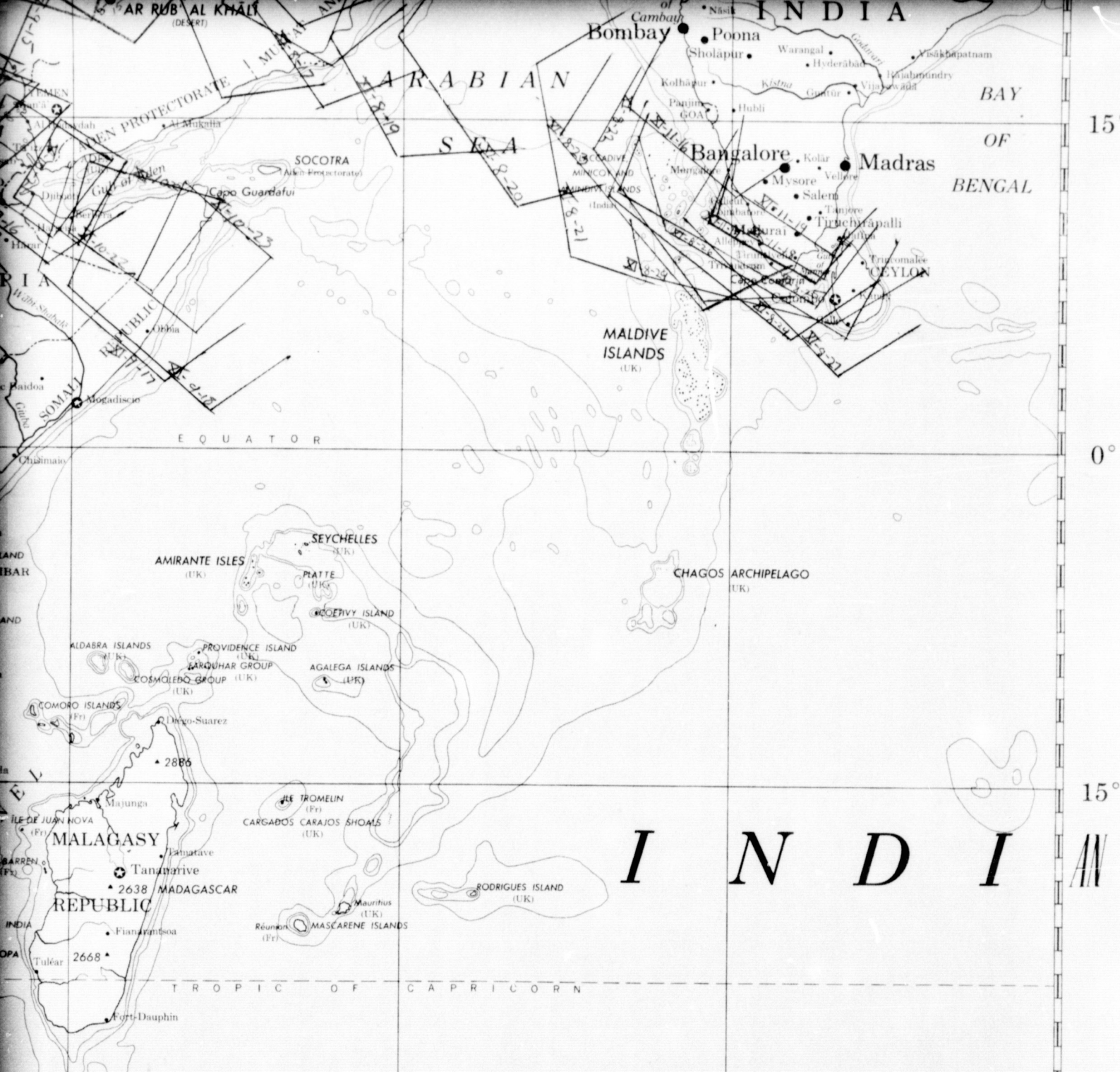
FIGURE 40

GEMINI 11

AFRICA, INDIA, AND THE NEAR EAST

FOLDOUT FRAME

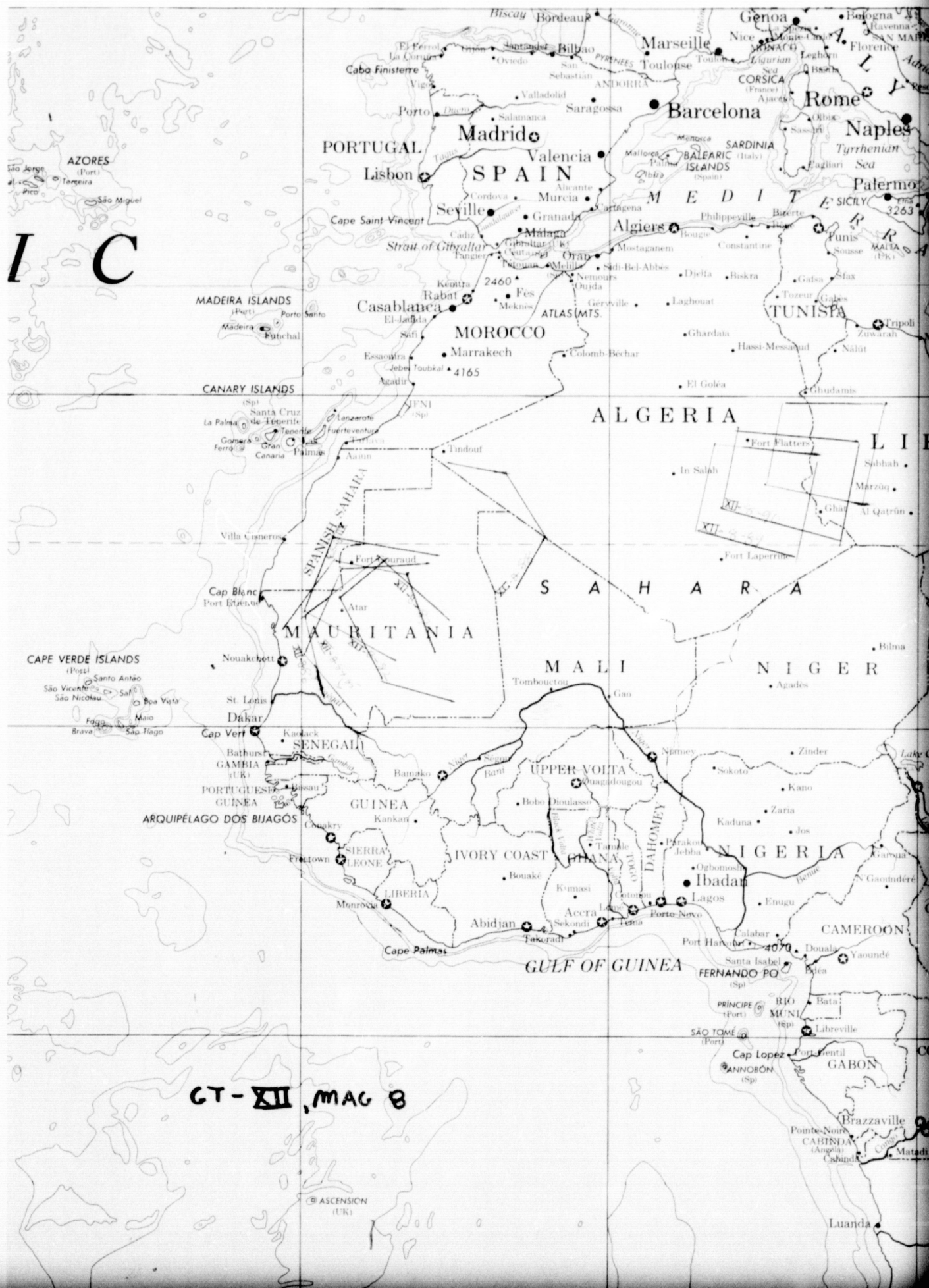
5



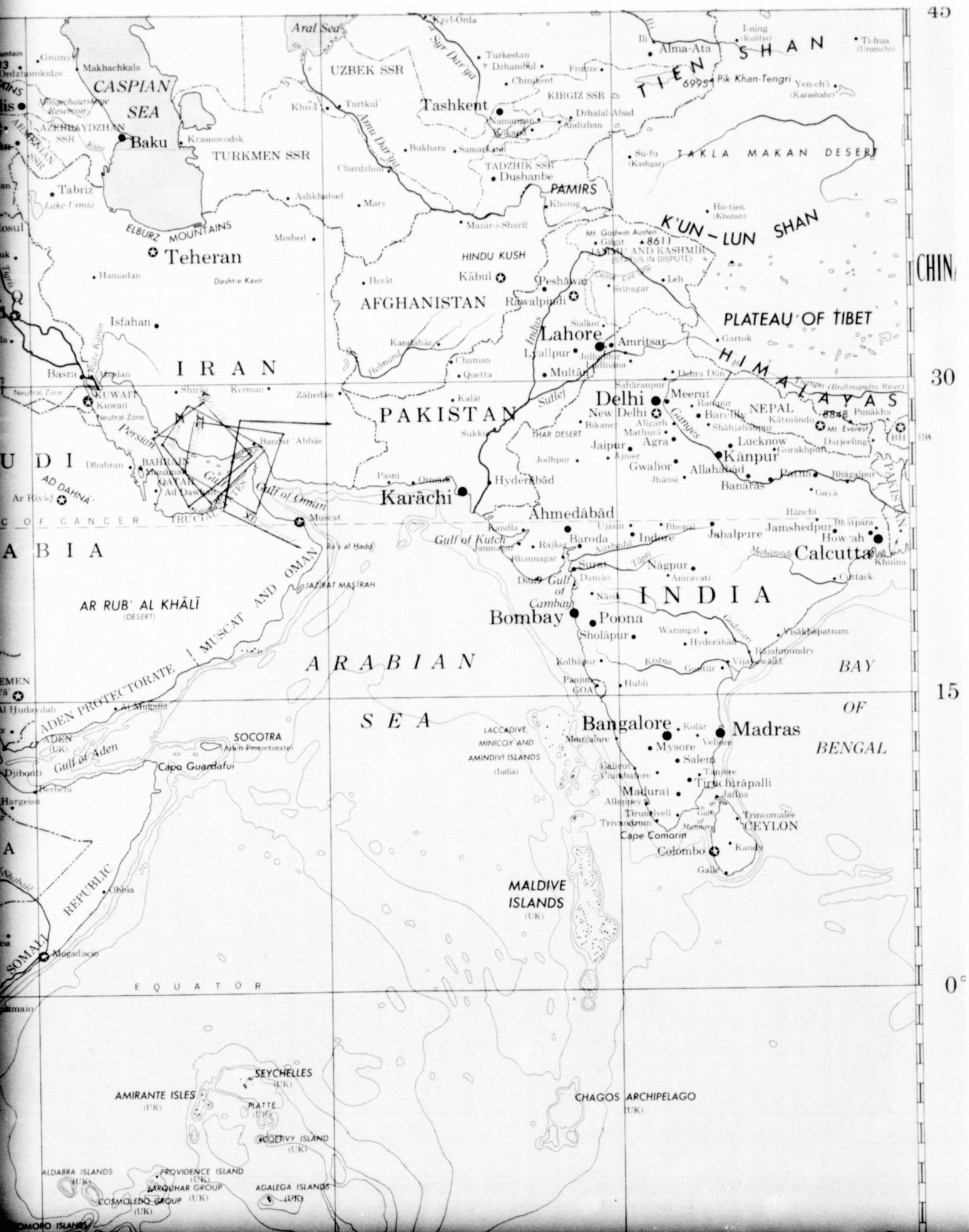
FOLDOUT FRAME

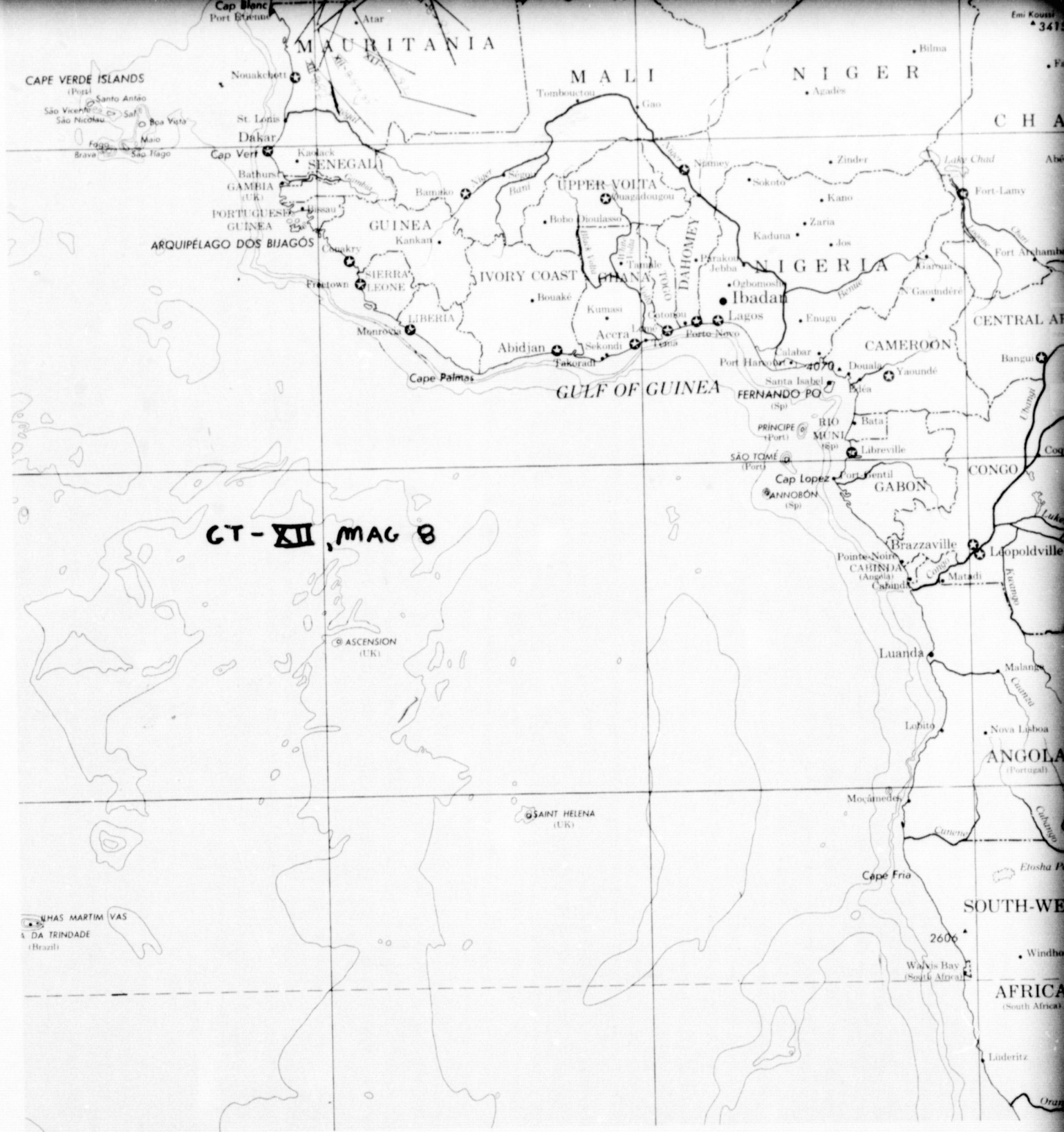
6

FOLDOUT FRAME









FOLDOUT FRAME

4

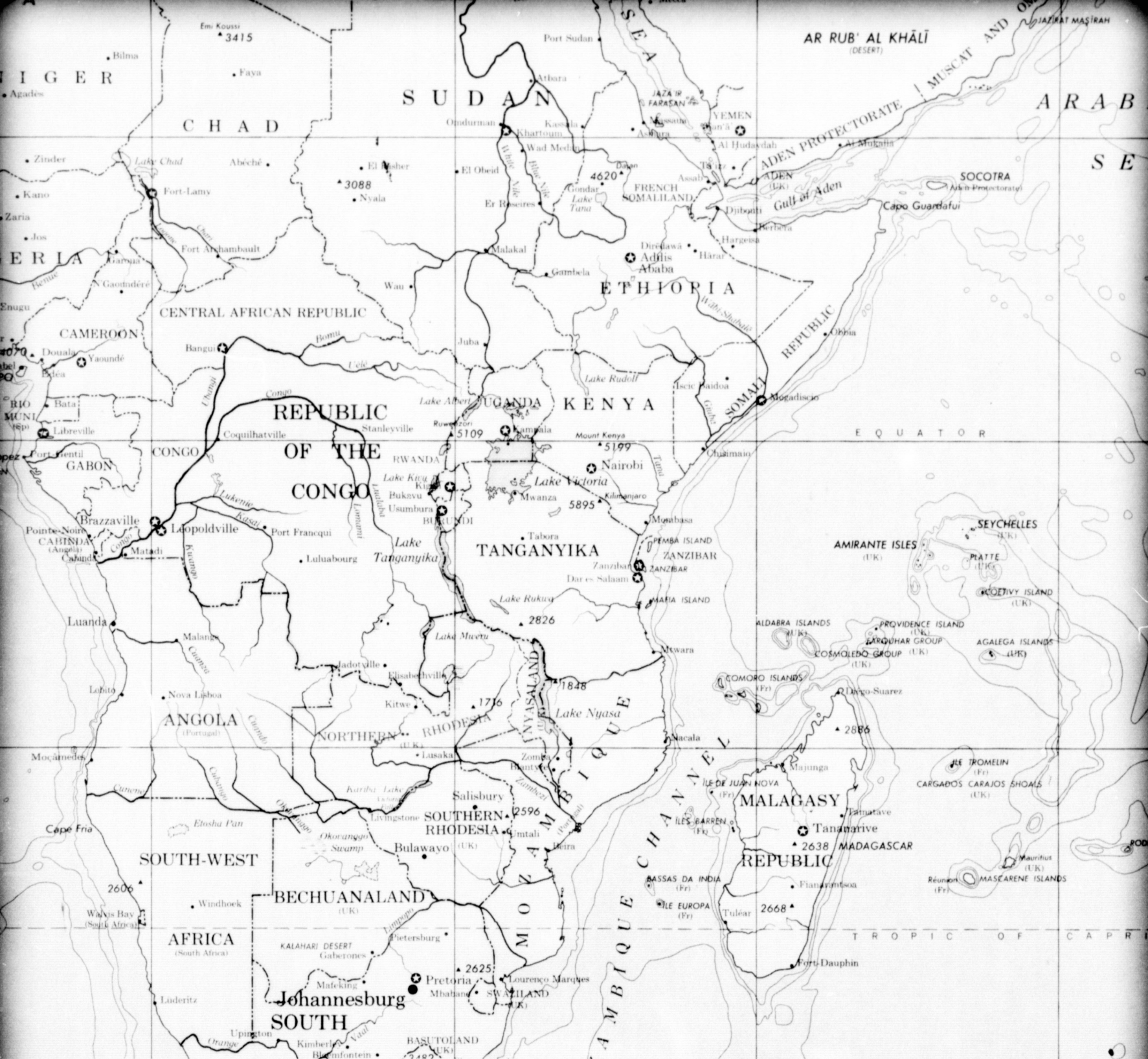


FIGURE 41

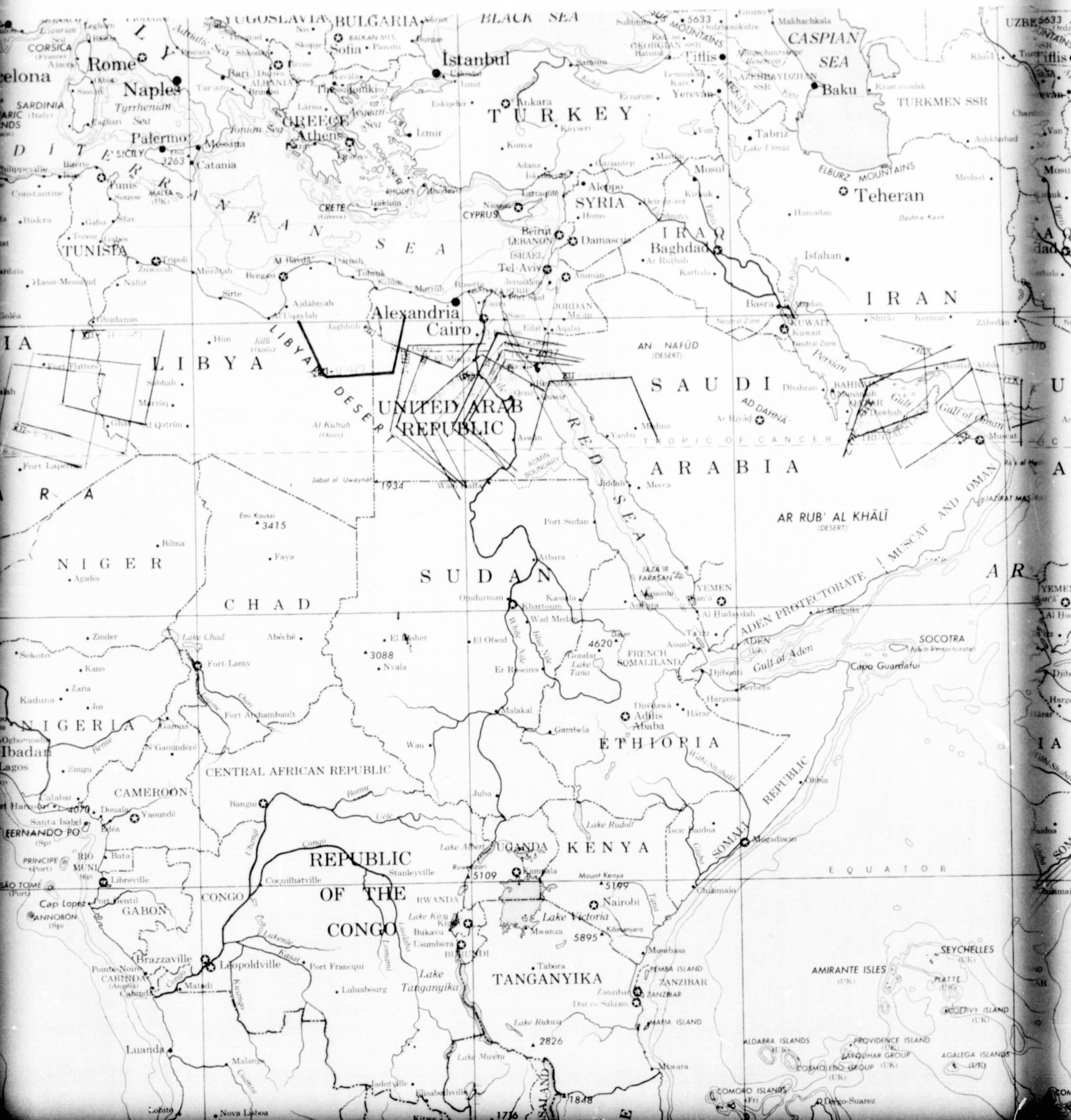
GEMINI 12

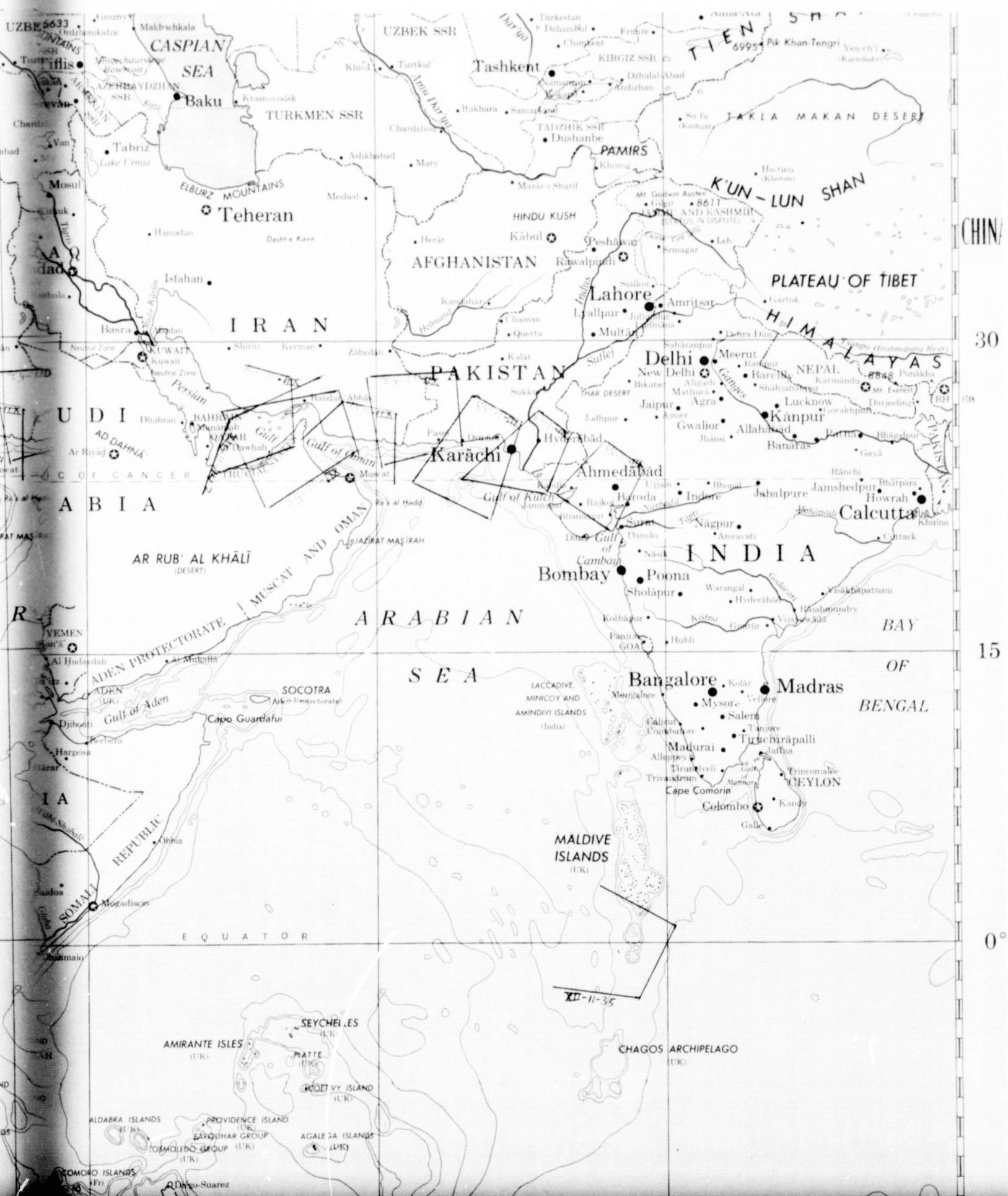
AFRICA, INDIA, AND THE NEAR EAST
(MAGAZINE 8)

FOLDOUT FRAME S

FOLDOUT FRAME







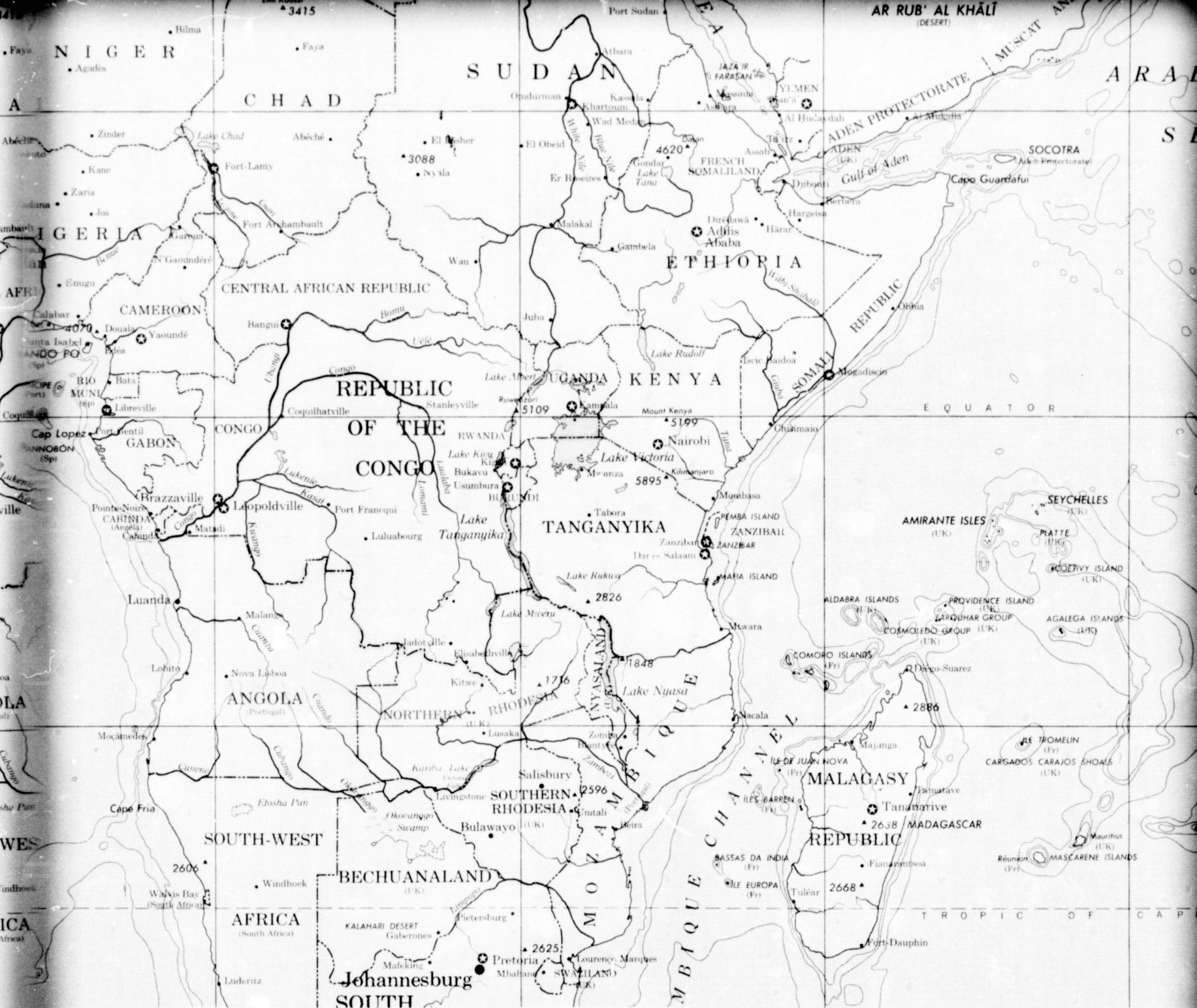


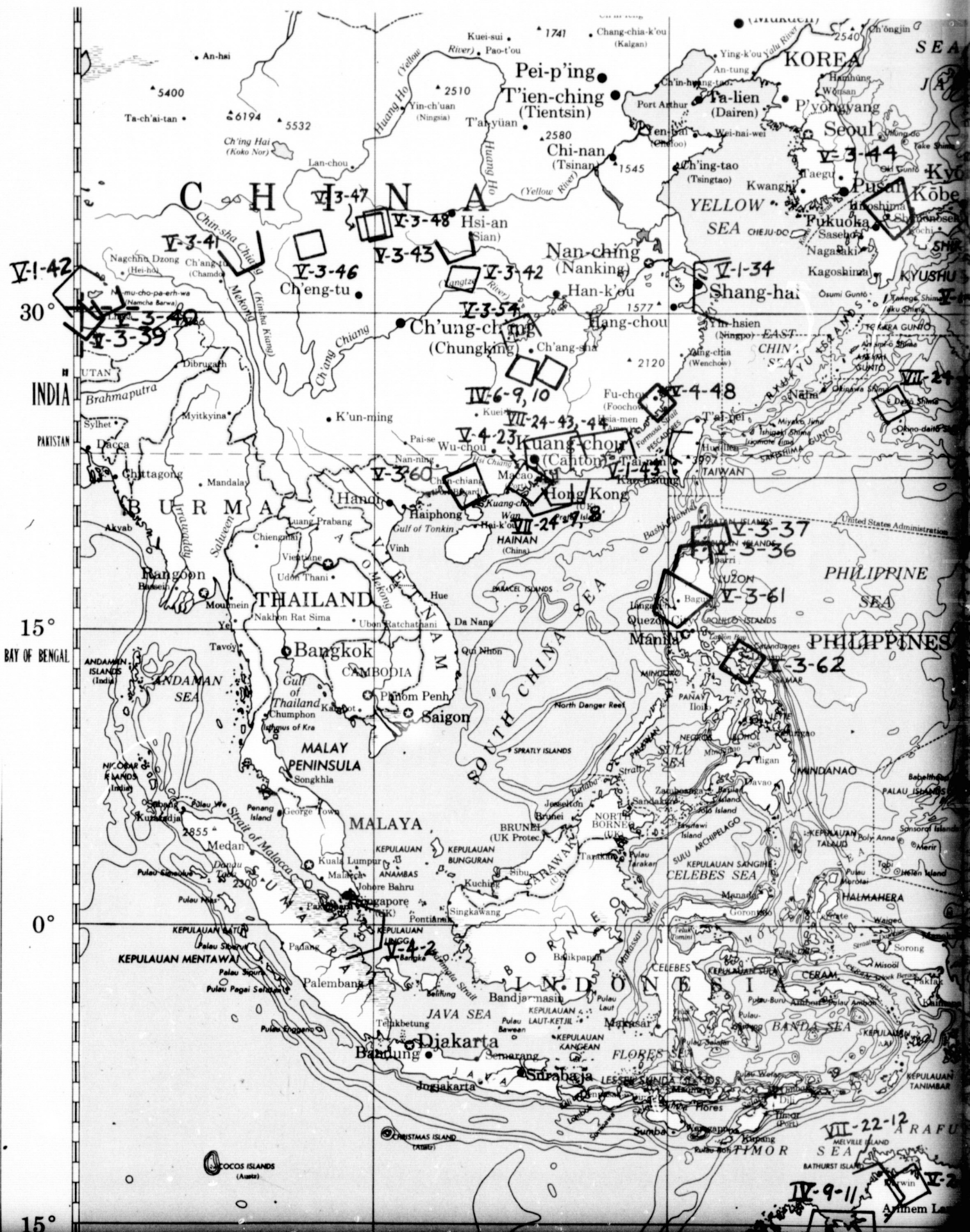
FIGURE 42

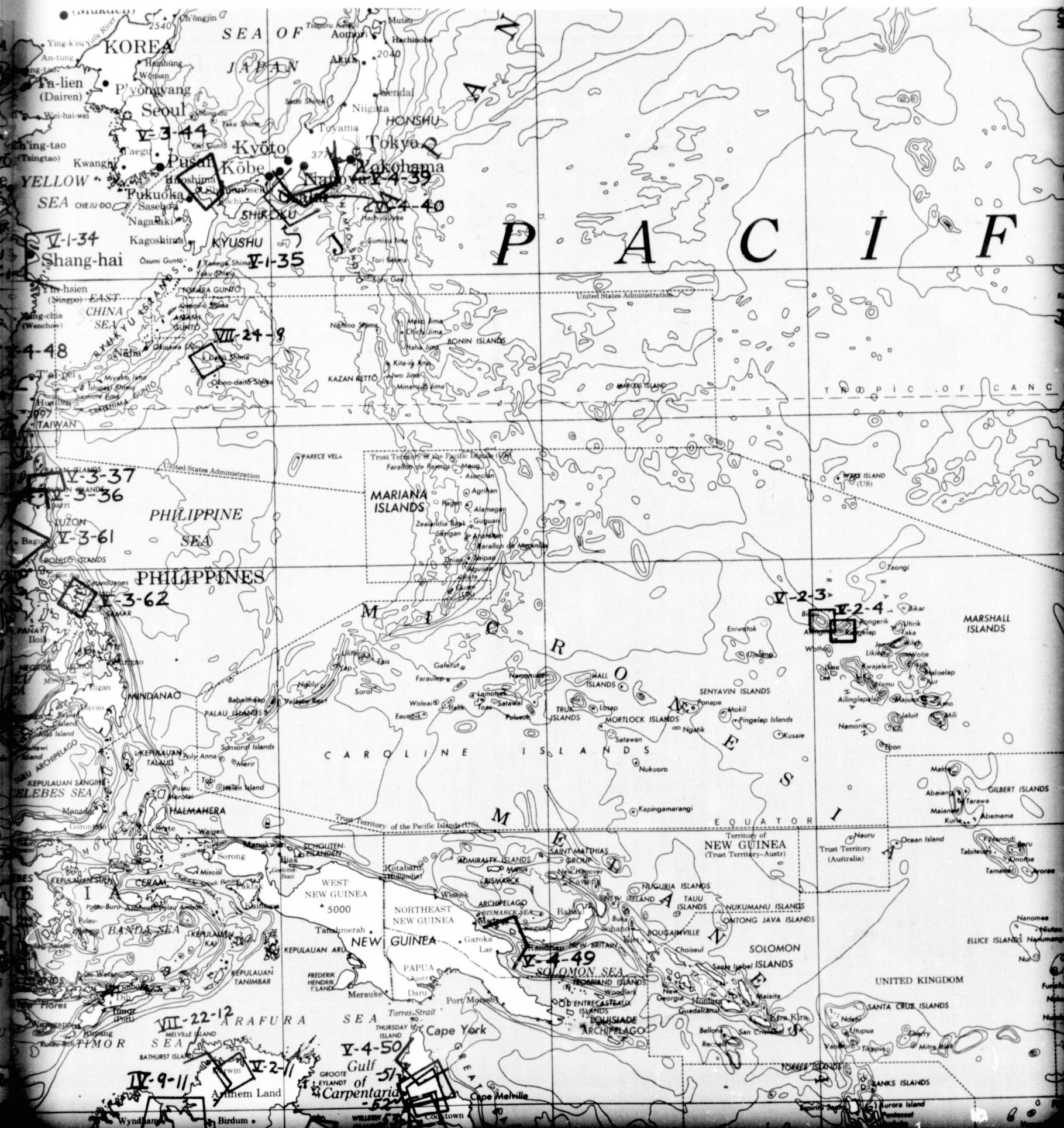
GEMINI 12

AFRICA, INDIA, AND THE NEAR EAST
(MAGAZINE 11 AND PART OF MAGAZINE 8)

OLDOUT FRAME 5

FOLDOUT FRAME





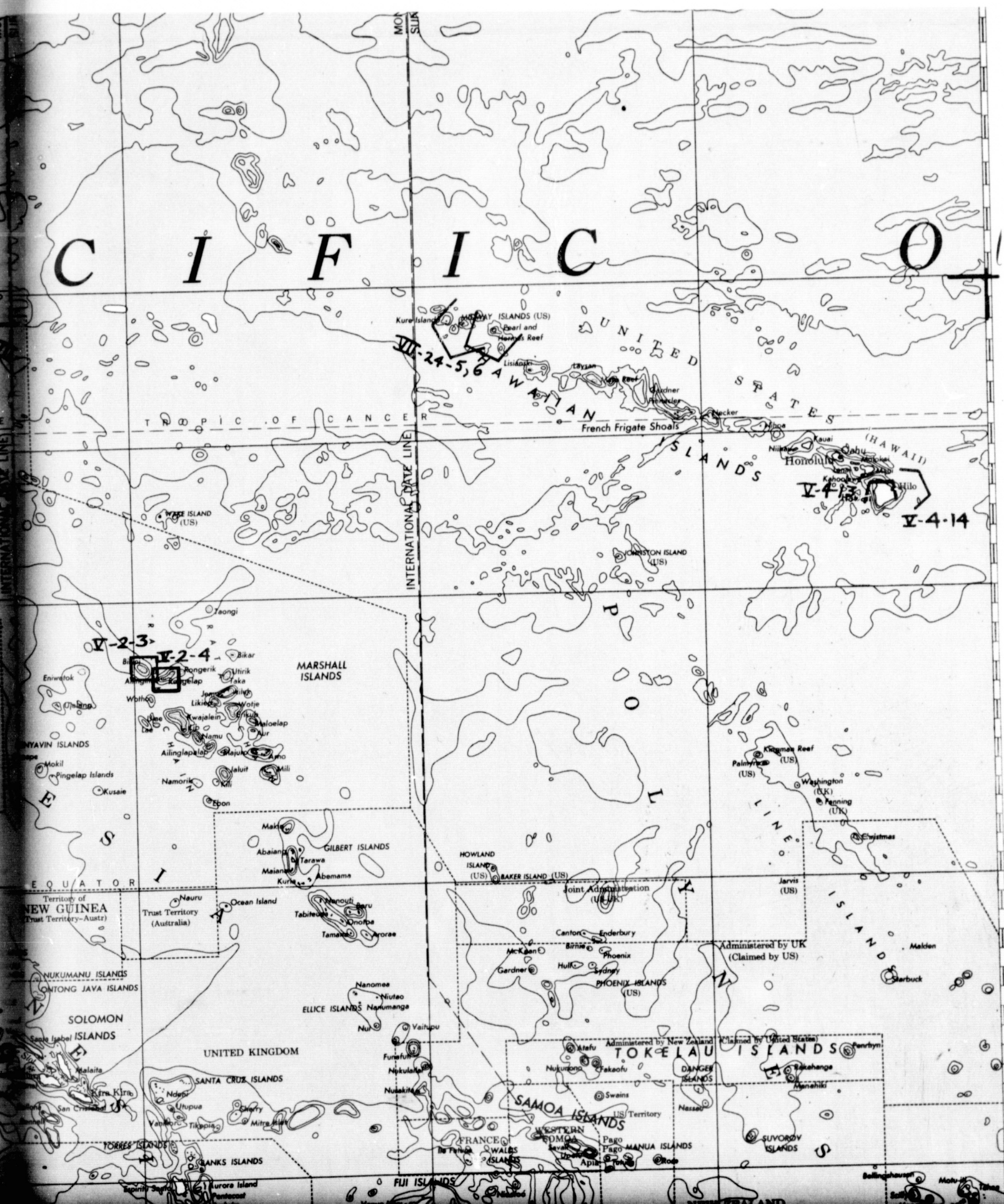


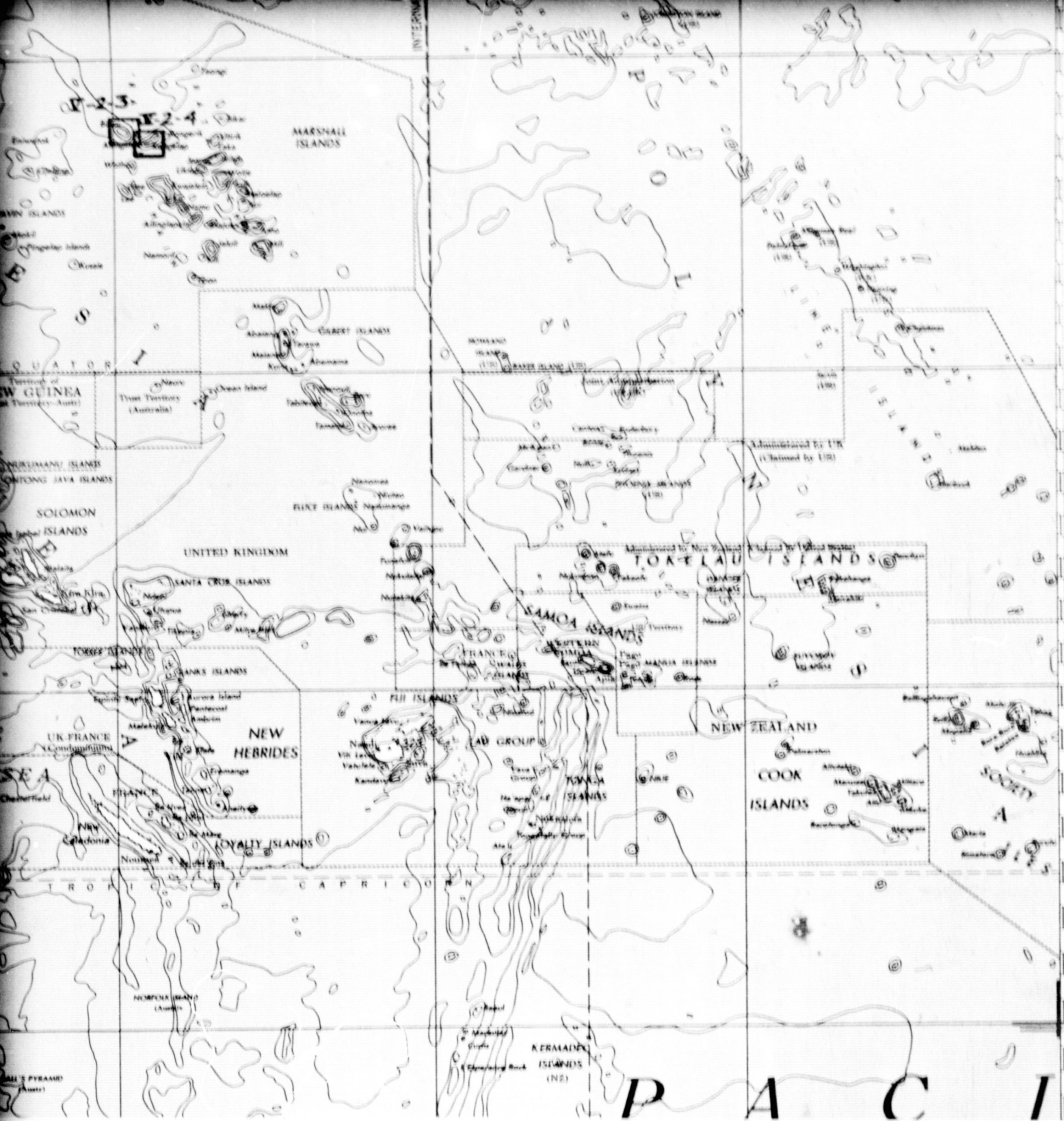


FIGURE 43

GEMINI 4, 5, 6, AND 7

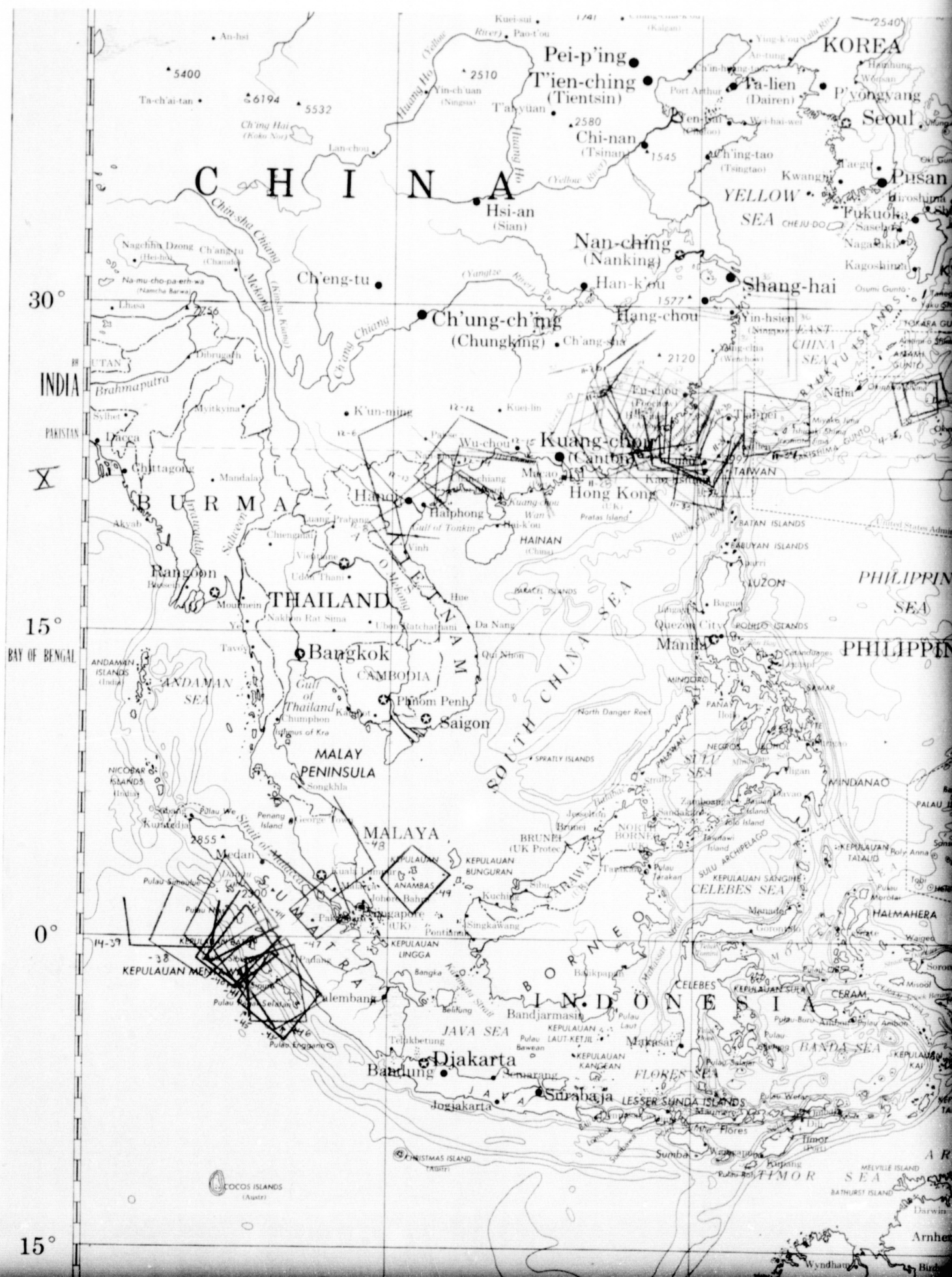
ASIA, AUSTRALIA, AND THE PACIFIC OCEAN

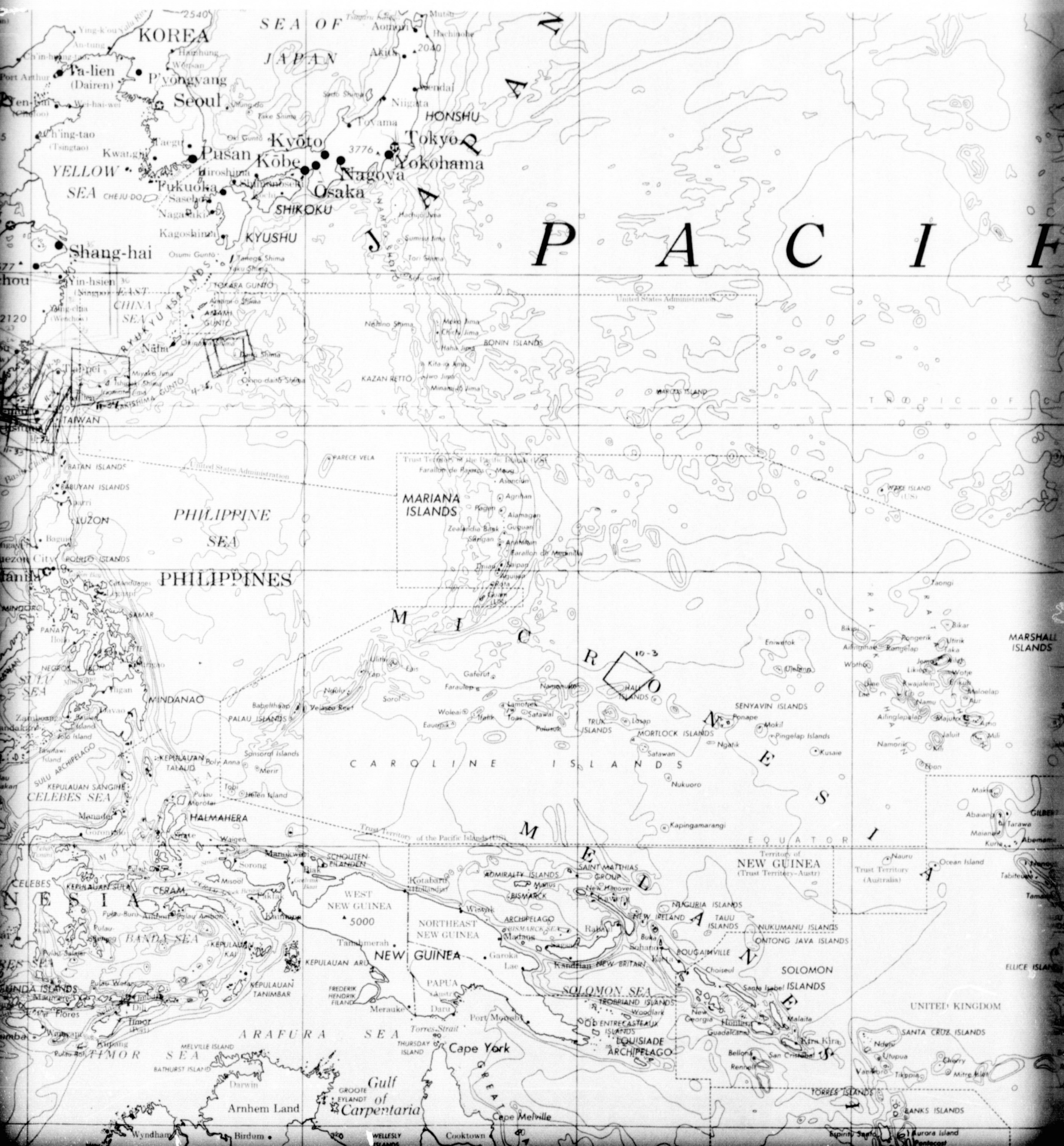
FOLDOUT FRAME



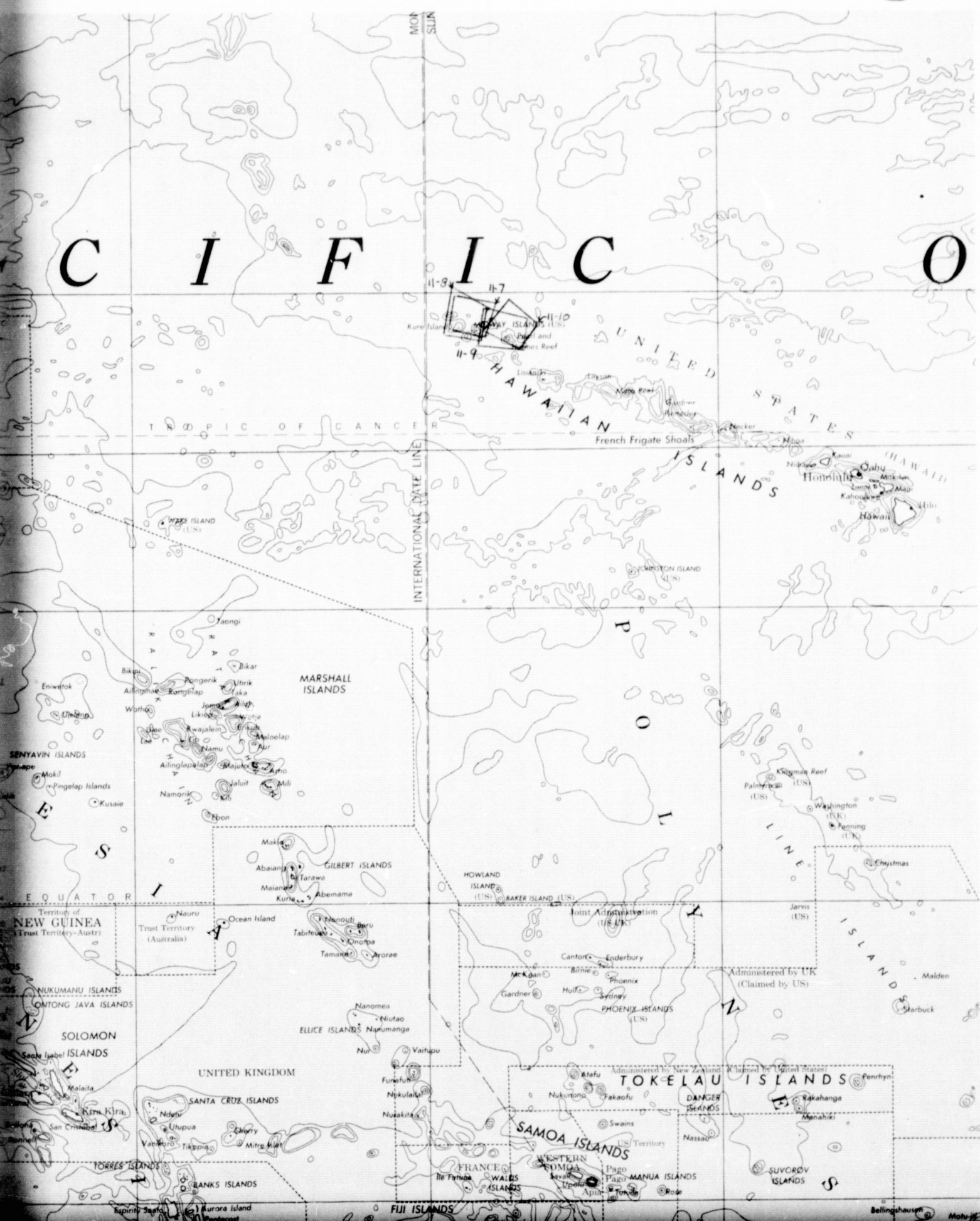
PACIFIC

FOLDOUT FLAME





FOLDOUT FRAME
3



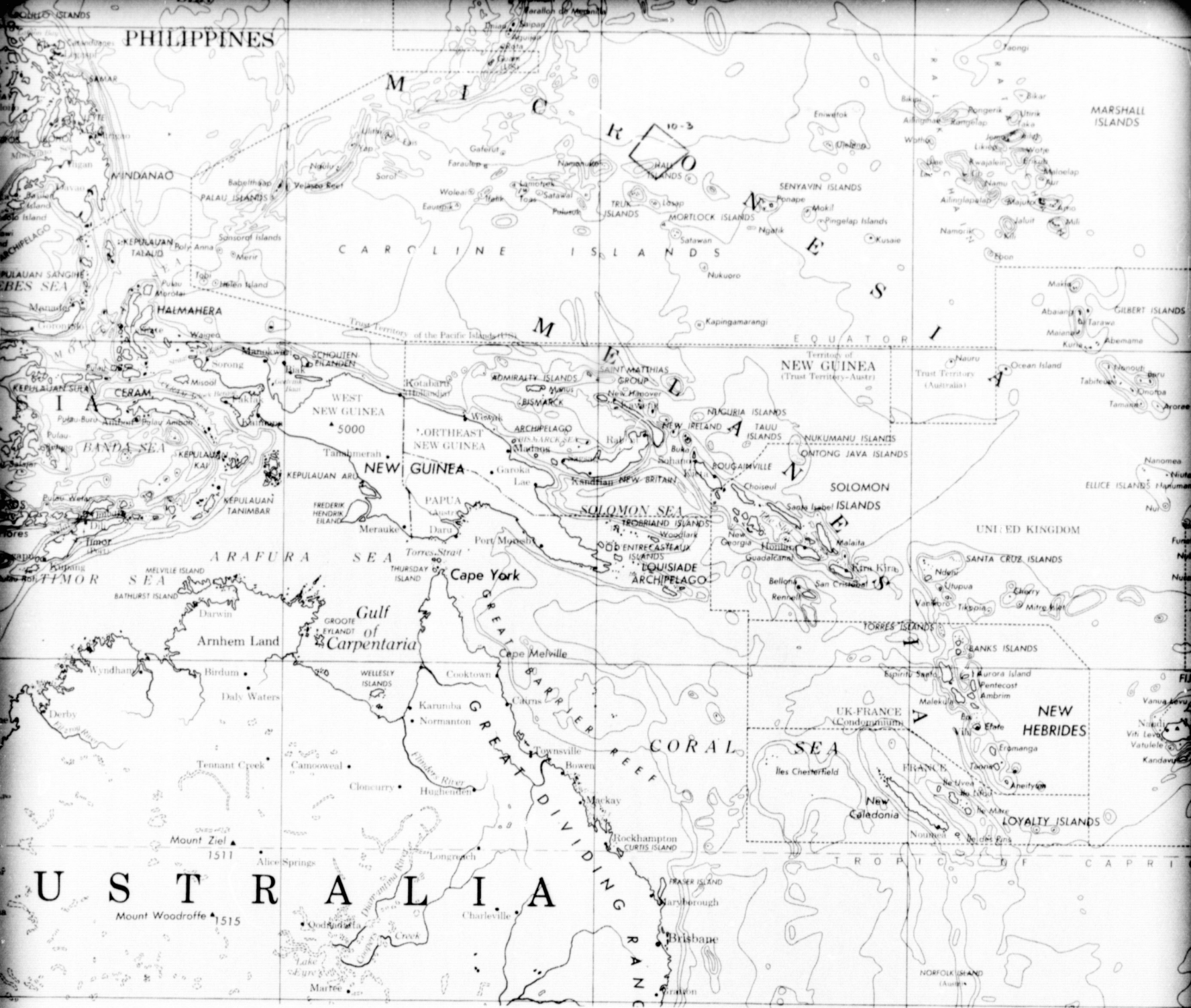
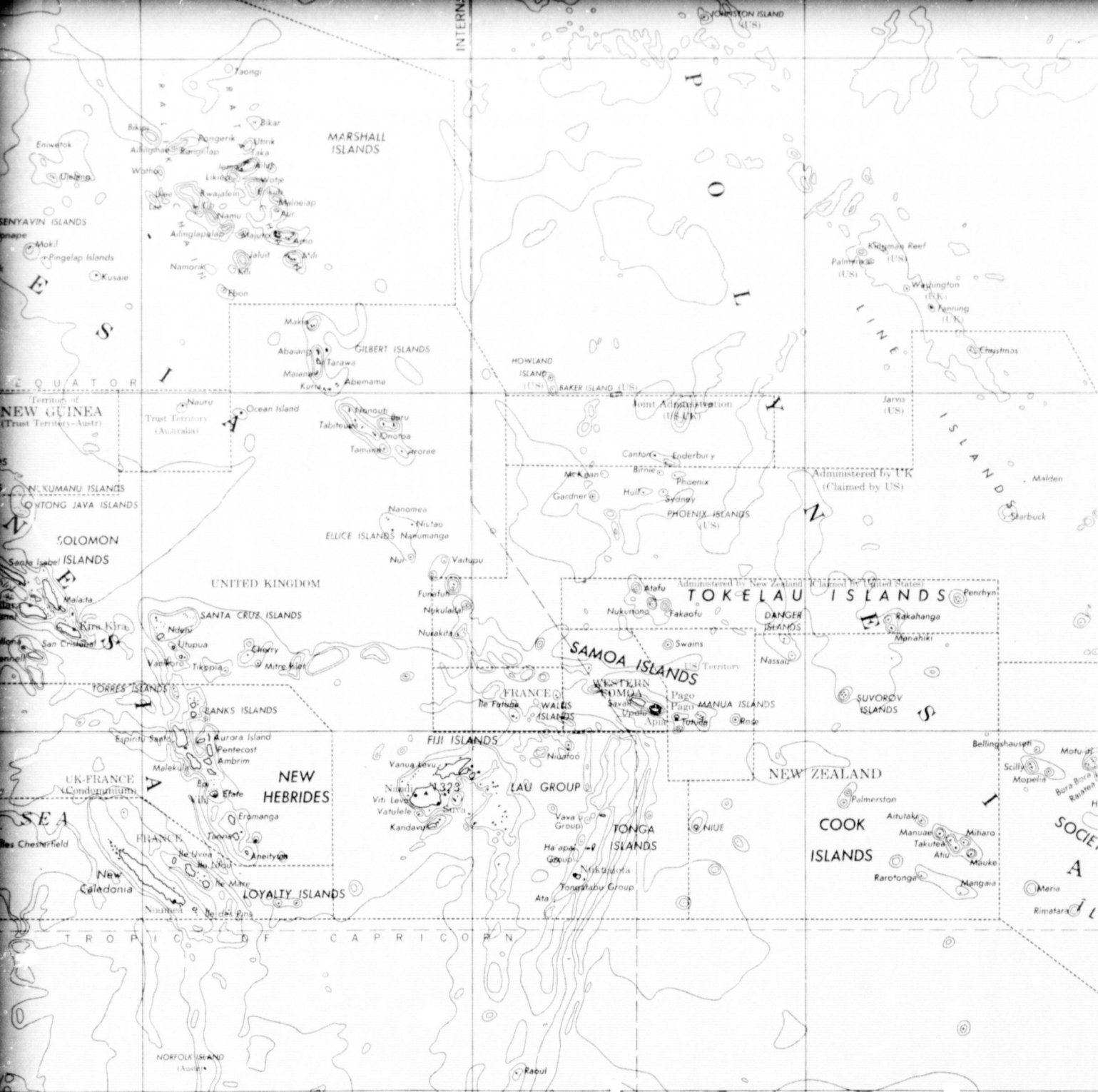


FIGURE 44

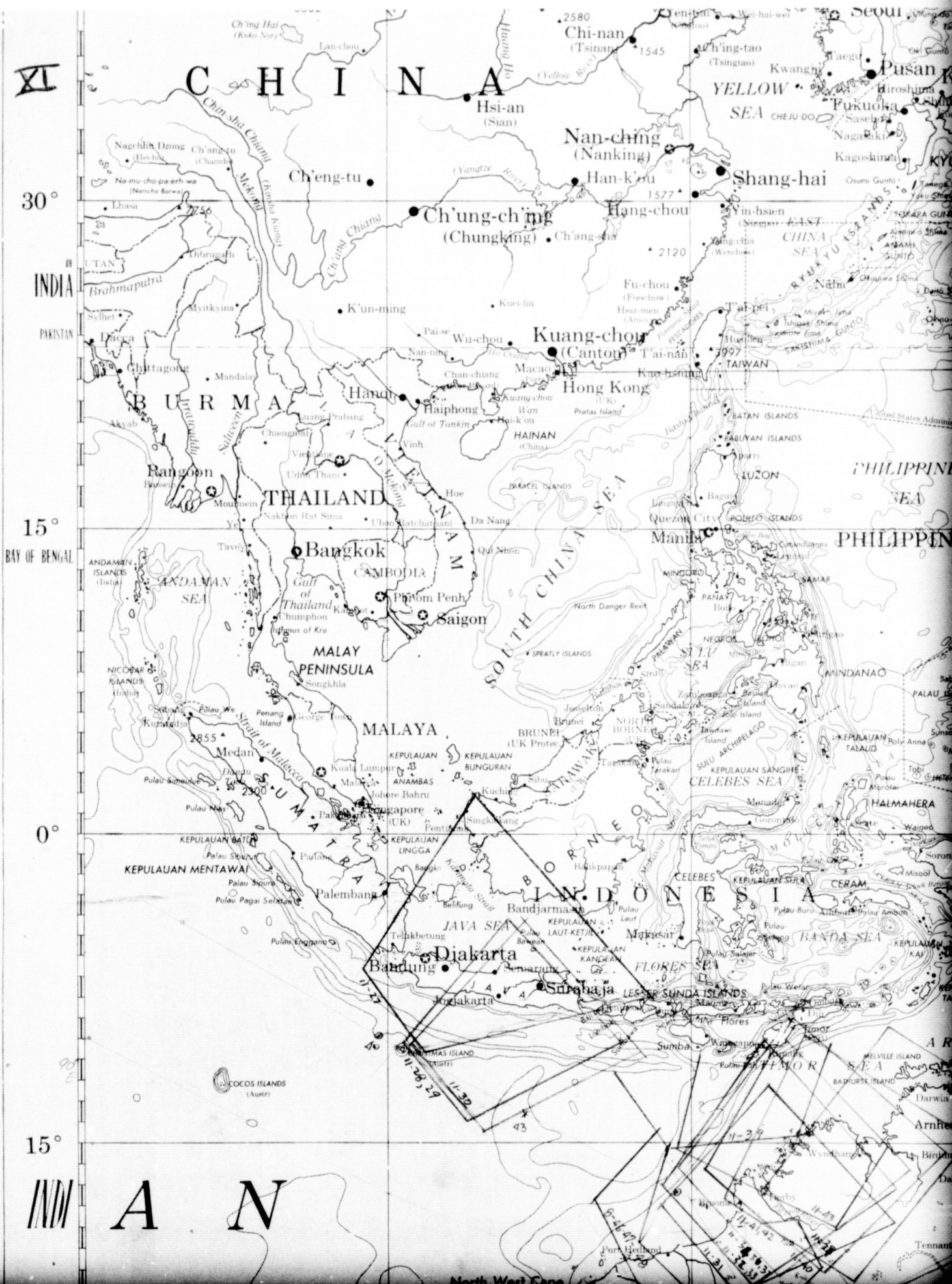
GEMINI 10

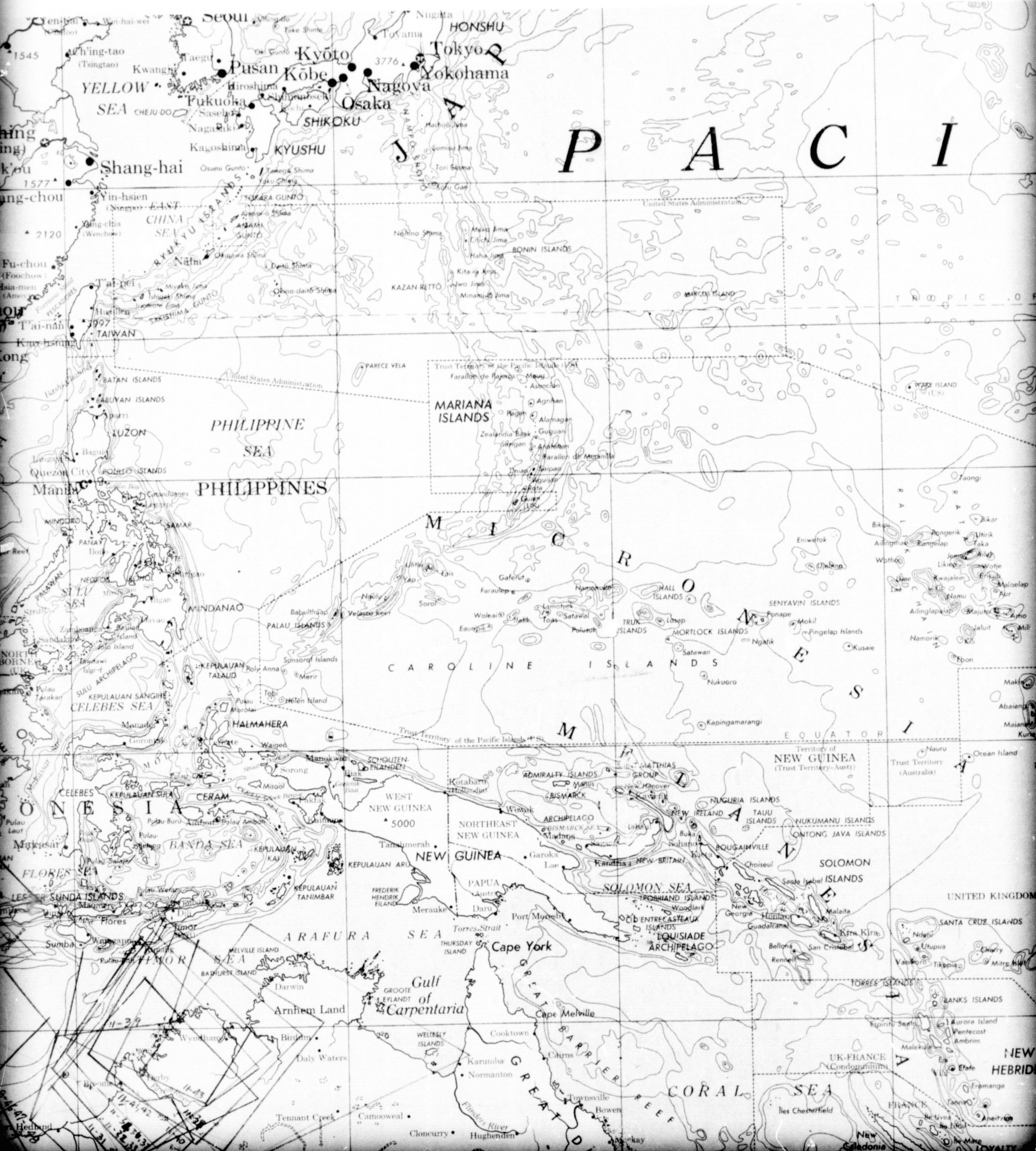
ASIA, AUSTRALIA, AND THE PACIFIC OCEAN

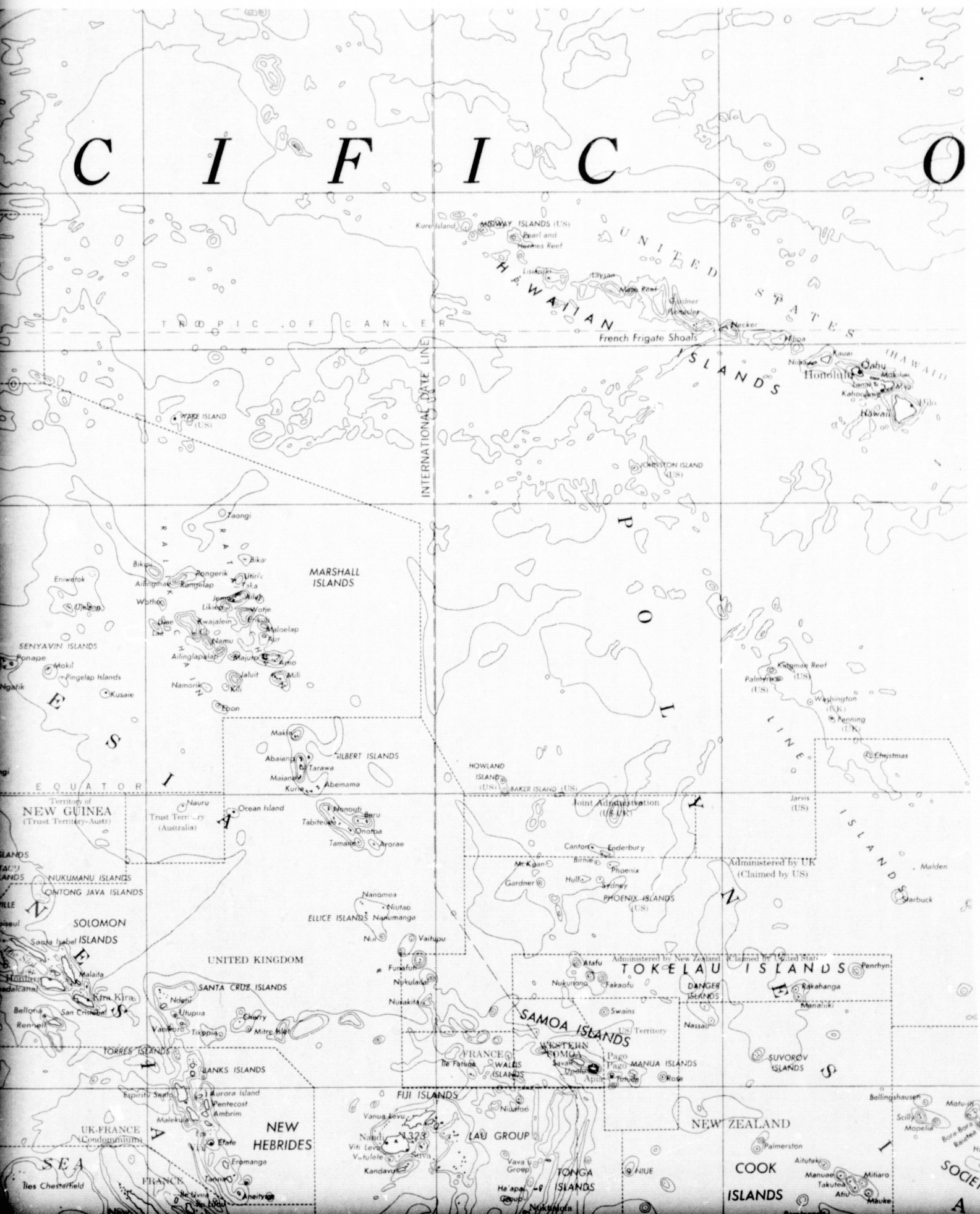
FOLDOUT FRAME

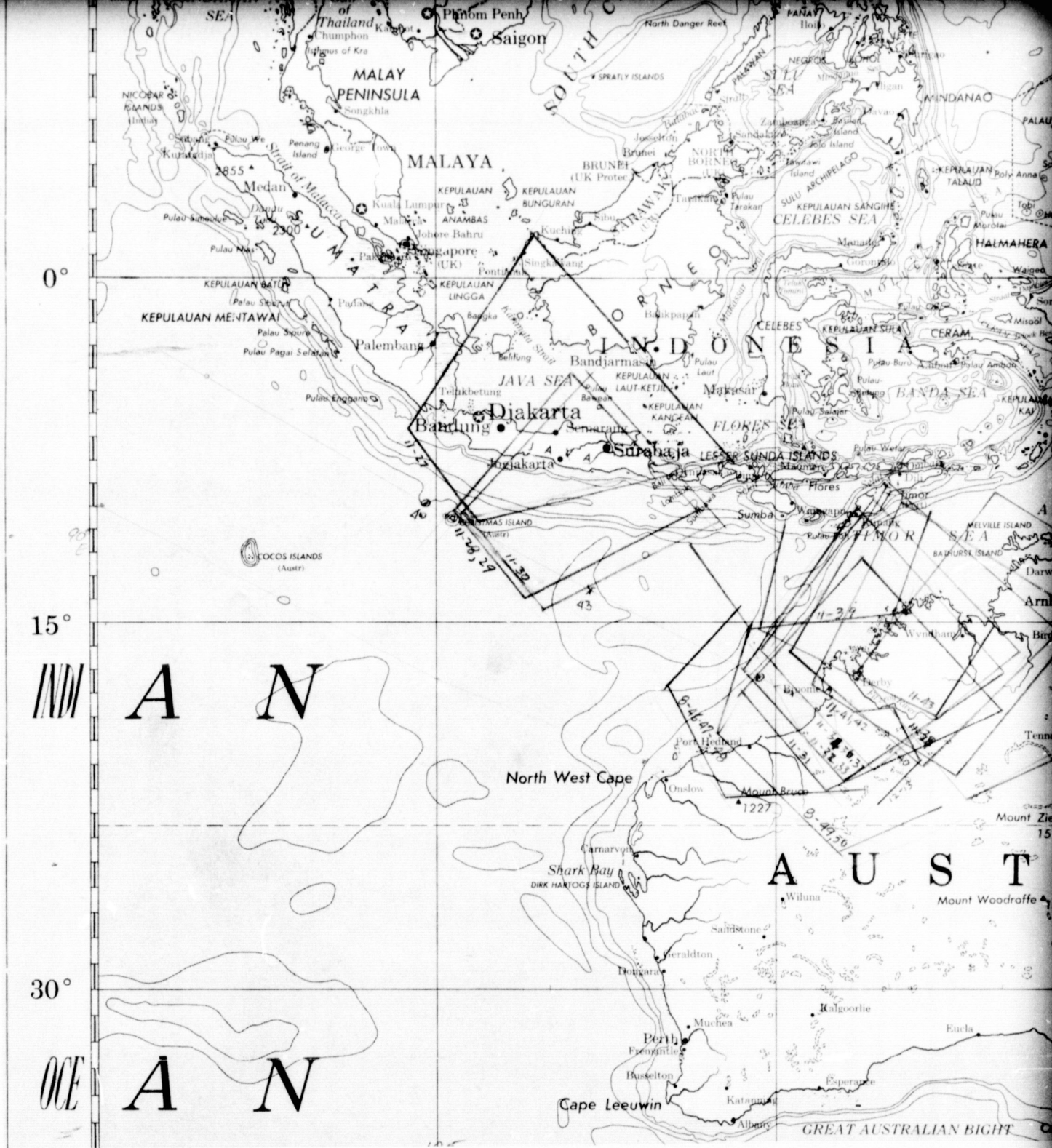


OLDOUT FRAME









FOLDOUT FRAME

4

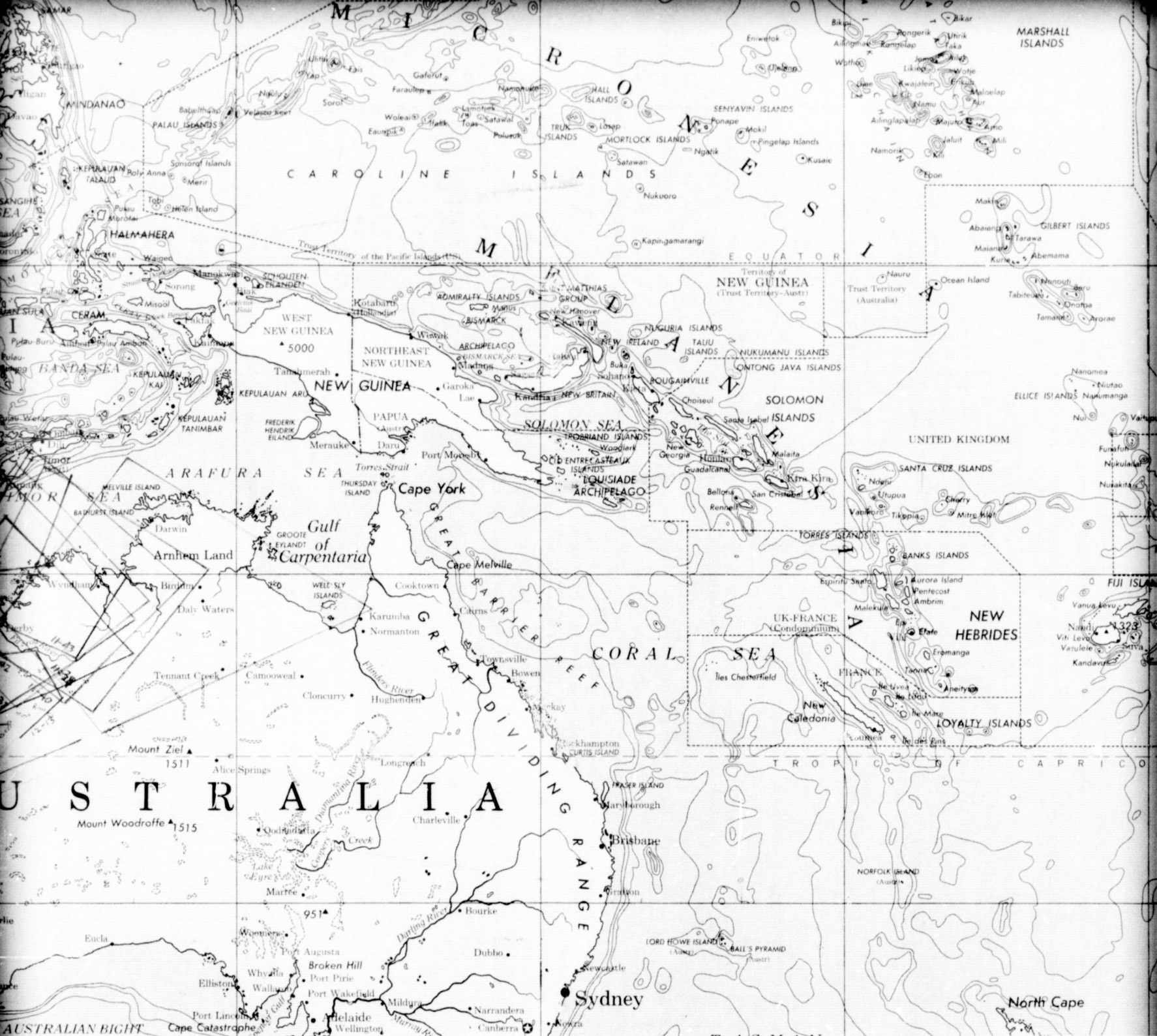


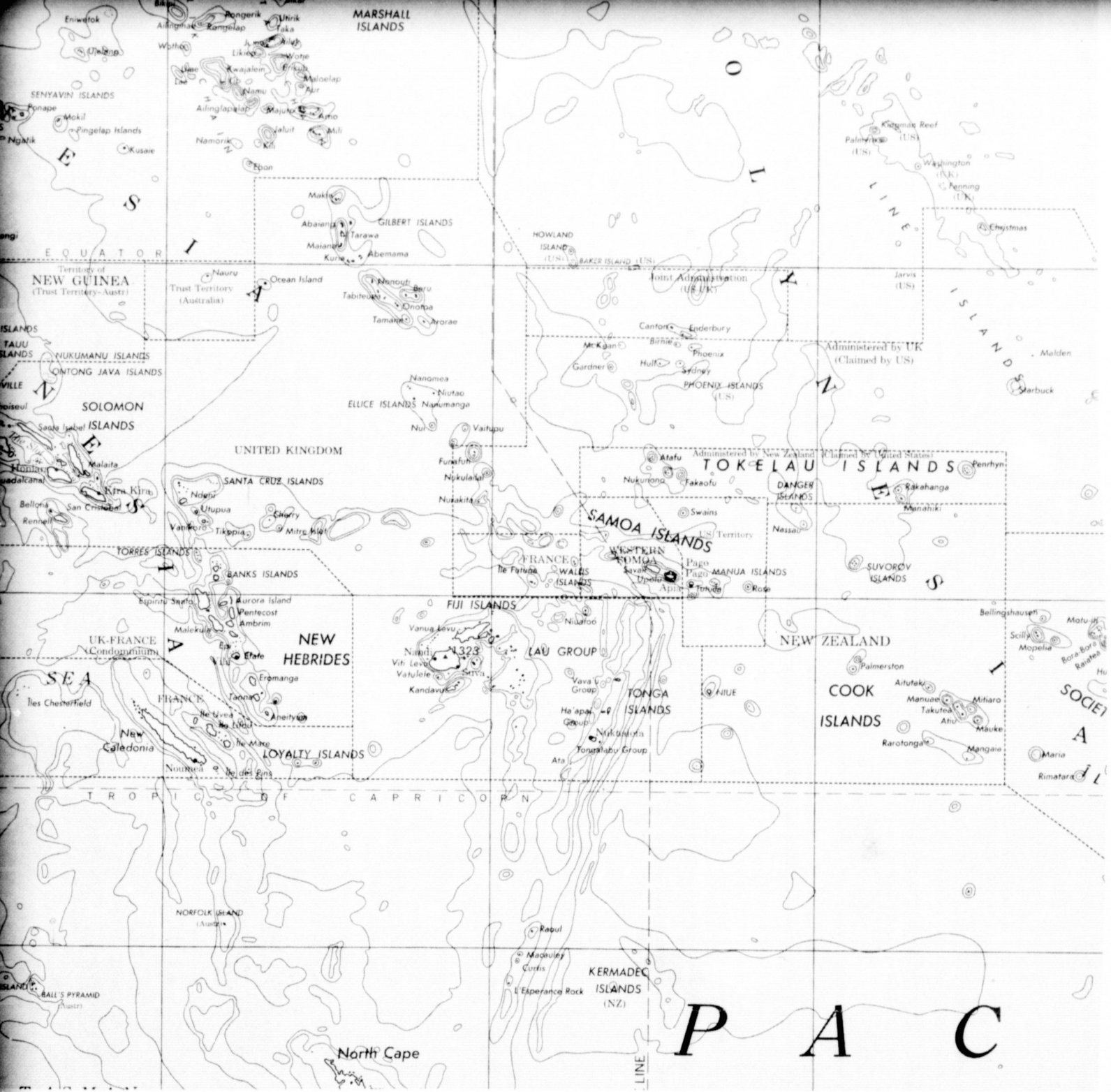
FIGURE 45

GEMINI 11

ASIA, AUSTRALIA, AND THE PACIFIC OCEAN

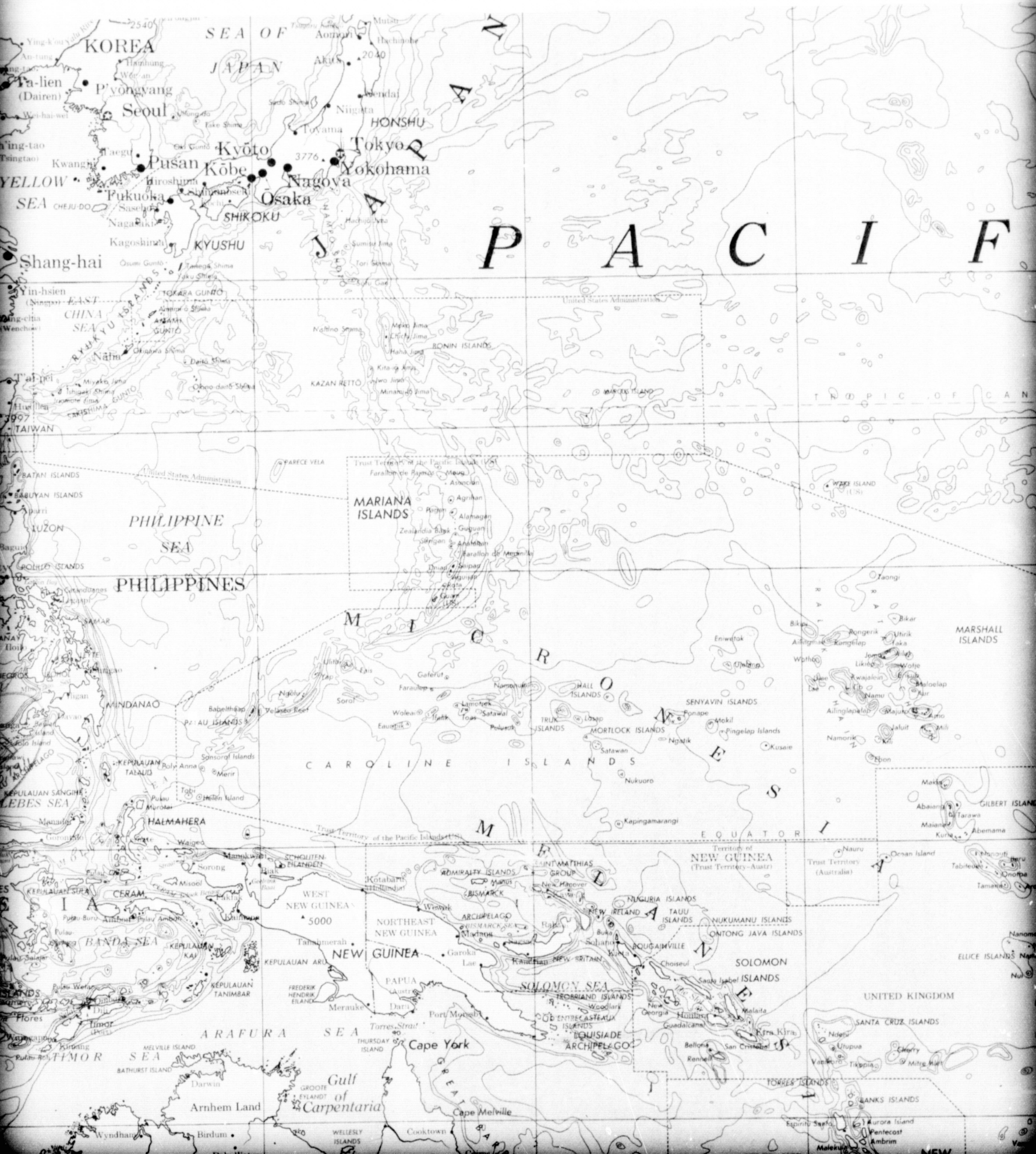
FOLDOUT FRAME

5



FOLDOUT FRAME

6



3

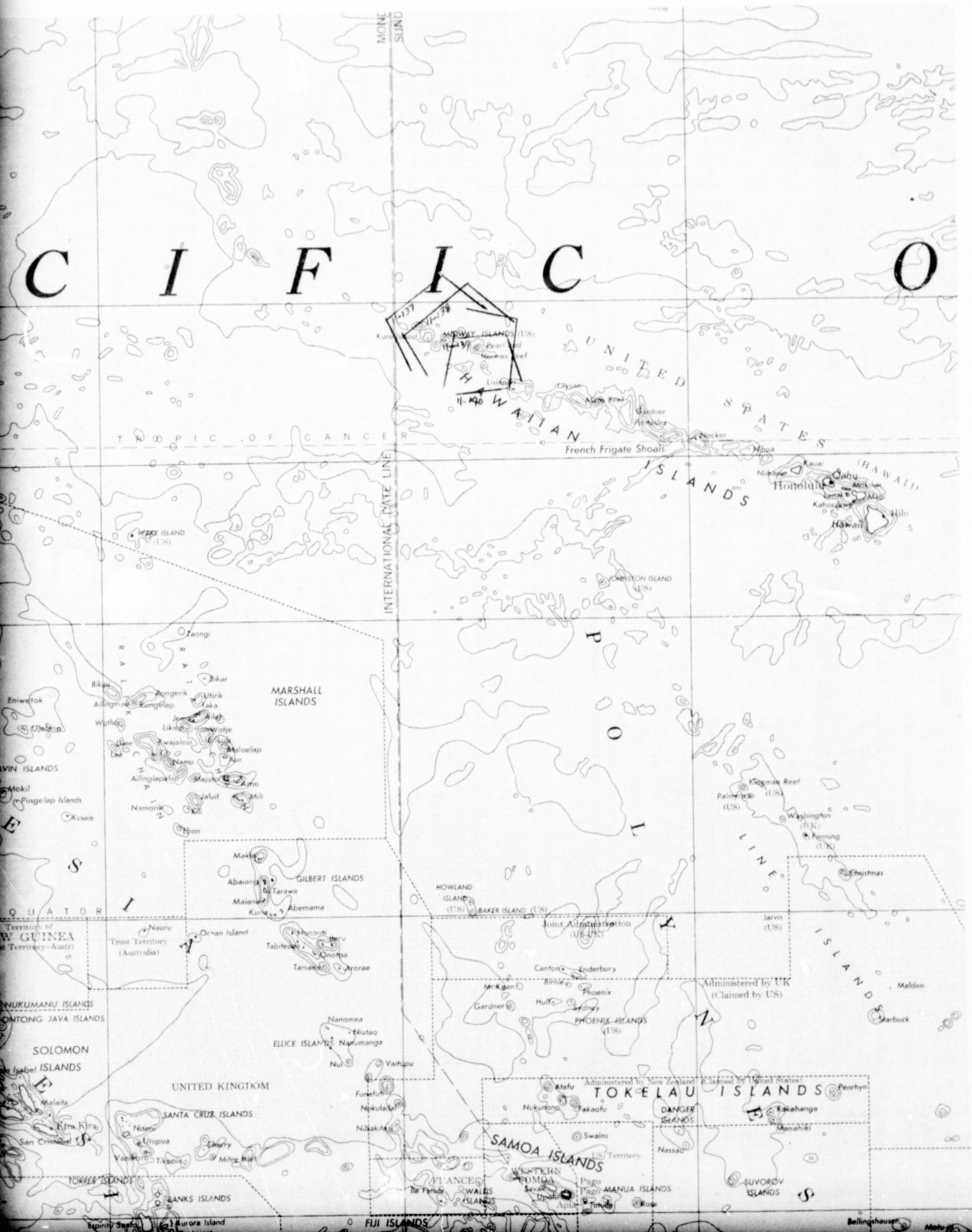


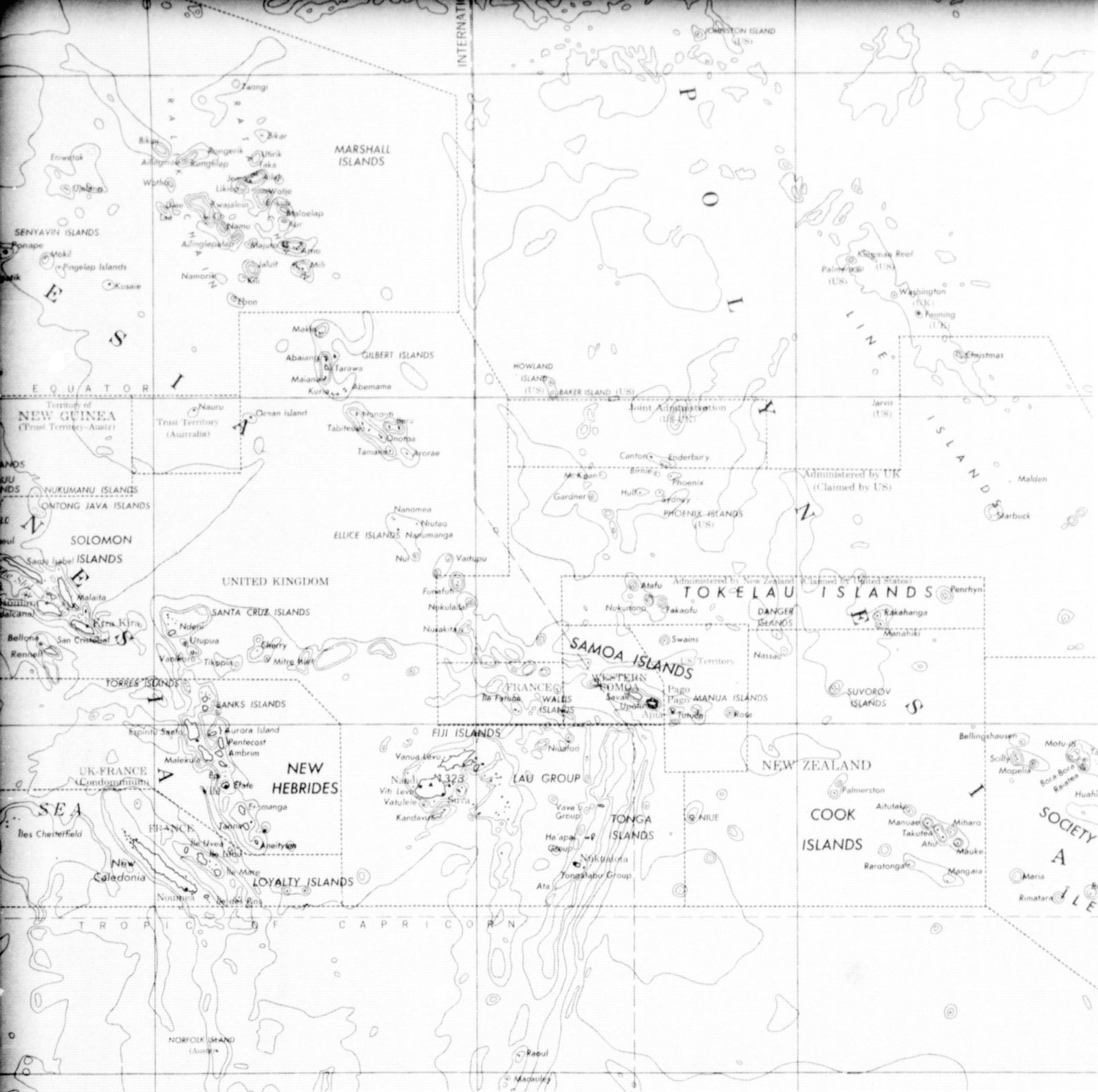


FIGURE 46

GEMINI 12

ASIA, AUSTRALIA, AND THE PACIFIC OCEAN

FOLDOUT FRAME



BOLDOUT FRAME

6

EAN

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